DOCUMENT RESUME

ED 341 034 CS 010 810

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TITLE A Learning Activity for At-Risk First Grade Students in the Decoding of the Consonants B, D, T, and S.
PUB DATE 2 Jun 91
NOTE 156p.; M.S. Thesis, New York Institute of Technology.
PUB TYPE Dissertations/Theses - Masters Theses (042)

EDRS PRICE MF01/PC07 Plus Postage.
DESCRIPTORS Class Activities; *Decoding (Reading); Grade 1; *High Risk Students; Instructional Effectiveness; Primary Education; *Reading Readiness; Reading Research; Remedial Instruction
IDENTIFIERS Emergent Literacy

ABSTRACT

An instructional program, based on the instructional systems design model, was developed to assist at-risk students at a New York State elementary school in decoding the consonants b, d, t, and s. Eight first-grade students who displayed difficulty in decoding words participated in the program which took place in a "reading corner" set up within the regular classroom setting. Within the reading corner, many big books, stuffed animals, alphabet cards, pictures, and printed materials were exhibited. Students verbalized the names of the animals and characters that were presented to them. Pretests, performance checklists, posttests, and follow-up activities were created. As a result of one-on-one evaluation and small group evaluation, revisions were made in the delivery of the instruction to accommodate individual learners and to improve the quality of instruction. Results indicated that: (1) the learners enjoyed the use of familiar objects, joining together in small groups, and participating in the reading corner; (2) the students displayed enthusiasm, with several students creating their own story books to donate to the school library; and (3) while many students had not passed the pretest, all passed the posttest. As a result of the success of the learning program, other classrooms incorporated a reading readiness corner within their classrooms. (Eight tables of data are included; a questionnaire, task analysis, charts, instructional tasks and objectives, interview results, the pretest and the posttest, performance checklists, lesson plans, a home checklist, a performance rating chart, a letter reversal worksheet, student survey, and a 21-item bibliography are attached.) (RS)

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The Faculty of the
School of Media and Arts
of The New York Institute of Technology

accepts the
Thesis/Project

A LEARNING ACTIVITY FOR AT-RISK FIRST GRADE STUDENTS IN THE DECODING OF THE CONSONANTS B, D, T, AND S

This project was conducted using the principles and techniques of instructional system design (ISD). The document is a report of the designer's plans and experiences in carrying out the design, development, implementation, and evaluation of the project. A plan, budget, analysis of findings, and recommendations are included.

written by

Caroline Constantino

in partial satisfaction
of the requirements for the degree of

Master of Science

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A LEARNING ACTIVITY FOR AT-RISK FIRST GRADE STUDENTS IN THE DECODING OF THE CONSONANTS B, D, T, AND S

a

THESIS/PROJECT

by

CAROLINE COSTANTINO

B.A. 1975, Queens College

submitted to the faculty of the
School of Media and Arts

of

NEW YORK INSTITUTE OF TECHNOLOGY

in partial satisfaction of the requirements for the degree of

MASTER OF SCIENCE

in

TRAINING AND LEARNING TECHNOLOGY

JUNE 2, 1991

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ACKNOWLEDGEMENTS

This project would never have been completed without the support and caring of my family. I would first like to thank my husband Anthony for his constant support, encouragement, and understanding. To my two children Andrew and Joanna, who withstood three years of sporadic dinner schedules and never once complained. To my mother, Josephine whose caring and perpetual assistance will never be forgotten. Finally, to my father Salvatore, who would have been very proud of my accomplishments - Thank you!

Sincere appreciation goes to Mrs. Ruby Hicks, who served as my advisor, and to Dr. Angus Reynolds, Director, Training and Learning Technology, for their constant assistance and support. They kept my spirits alive and provided the answers to many questions. Their guidance helped me to reach my goal.

I also wish to thank the teachers, staff and students at the Albany Avenue Elementary School in Farmingdale, New York, without whom this project would not have been possible. Special thanks go to fellow teachers Merle Goess and Donna Bretches for helping me locate materials for this project.

--Caroline Costantino

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CHAPTER 1

INTRODUCTION

Overview

There is no question that reading is fundamental in the development of education for all individuals. About twenty-seven million Americans are illiterate and that number is growing. Statistics speak for themselves. Thirty-five to forty percent of American students in grades K-12 are classified as at-risk. For public high schools, the drop out rate hovers at around twenty-five percent; in some urban schools, the rate is more than fifty percent. These numbers are frightening, yet they are a reality. Can educators accept these statistics without finding an answer to this increasingly difficult problem?

The State Education Department and the school districts, are developing programs to educate our students at-risk. The objectives pertaining to this project are incorporated in the New York State Elementary Reading Curriculum. The objectives are geared to help at-risk students: perform visual matching concepts, identify and imitate sounds, match words that begin with the same sound, match words that end with the same sound, match and sort instructional materials, copy letters and words, recognize upper and lower case letters, and recognize consonant and vowel sounds in isolation. These objectives were formulated to help at-risk students having difficulty with reading procedures.

At-risk students are generally low-achievers. Their lack of self esteem stems from emotional or physical set backs within their environment. There are an increasing number of bi-lingual students in our schools today as well as students who come from broken homes. Both factors lead to at-risk situations. This statement is true in the Farmingdale school district. Patience and time are needed when dealing with the at-risk student. We, as educators, must change pressures and inabilities into willingness and caring.

The educational goal in this country is to address the problem of illiteracy and cut the dropout rate to zero by the turn of the century. Where better to start than with our primary aged children? We can help by increasing our awareness and focusing on problem areas.

This study was one approach that fostered communication, interpretation and application of information. Everything we do has a basis in reading. Motivation and persistence will help guide many at-risk students. The Teacher Opportunity Corps is just one program developed to train prospective teachers dealing with our at-risk population.

Background

The setting for this project was a first grade classroom with approximately eighteen to twenty students. The majority of students in this Farmingdale elementary school were from middle-class families. The Albany Avenue School is located in Farmingdale, New York. Several students qualified for resource room assistance which placed them in the at-risk population. The classroom was located in one of the four elementary schools in this district. The target population consisted of eight, six year old first grade students who exhibited difficulty with reading readiness activities on the kindergarten level. The designer selected these students because of the degree of difficulty they were having with the first grade reading program. The school district uses a basal reading approach. Student workbooks are used for reinforcement of stories and new words. Additional instructional materials for problem areas are not included in the current program. The students required a structured program to help them recognize letter symbols and associate these symbols with the sounds they make.

The elementary reading program in the Farmingdale schools has piloted several reading approaches over the past three years. The curriculum is divided into three areas as follows: reading for aesthetic and personal response; reading for acquisition, interpretation, and application of information; and, reading for critical analysis and evaluation. Each of the four elementary schools within the district has piloted different reading programs.

The Metropolitan Readiness test was administered at the beginning of the 1990 school year. This printed test is the only form of measurement in primary grades. Further tests were instructor-made. By reviewing the results of this exam, the designer had a better idea of which areas needed improvement. The poor test results were accounted for in the areas of letter sound associations, matching words that begin with the same sounds, and recognizing letters of the alphabet. The eight students who required further instruction received a 0-4 raw score band in beginning consonants and a 0-6 raw score band in letter recognition. This performance rating is translated into a (-) rating which indicated their need for further help in developing these specific skills. The performance ratings corresponding to raw scores for level 1 of the Metropolitan Readiness Test are reflected in Table 1. The performance ratings were categorized as follows. (+) - This rating indicates that the child may be judged proficient in this task. (/) - This rating indicates that the child is in the process of developing this skill. Activities related to this skill should be continued. (-) - This rating indicates that the child needs help in developing this skill. Activities related to the development of prerequisite skills may be needed. See Table 1.

TABLE 1

Metropolitan Readiness Test/Performance Rating

Test	Raw Score Band	Performance Rating
Auditory Memory	11 - 12	+
	6 - 10	/
	0 - 5	-
Beginning Consonants	13 - 14	+
	5 - 12	/
	0 - 4	-
Letter recognition	10 - 11	+
	7 - 9	/
	0 - 6	-
Visual Matching	13 - 14	+
	9 - 12	/
	0 - 8	-

The performance ratings were helpful in determining levels of skill development. However, students were not labeled "below-average" due to these findings. The designer did not categorize a negative (-) rating as a sole indicator of performance. Further investigation, including one-on-one evaluations, required the designer to pursue this reading approach with students at-risk.

This study was undertaken in order to assist students who were potentials for failure, such as students who did not meet the academic requirements in reading for grade one. In addition, this study attempts to determine whether these at-risk students can recognize and use letters b, d, t, and s in reading situations. These consonants were selected because they gave students the most difficulty to verbalize and associate in words. Students had difficulty putting the sounds of letters together to formulate words. This process is called decoding.

Statement of the Problem

Records indicated that reading scores, in second grade, had been declining over the past five years within the Farmingdale school district. The designer noticed that other first grade teachers were discussing the number of students having difficulty with reading readiness activities. Indications were that a change in the student population contributed to these results. Many students came from broken homes, or families of foreign origin. Farmingdale schools have seen an increase in Asian as well as Indian students in the past five years.

Within the classroom, the students work with basal readers. They learn by repetition of words and pictures associated with these words. The students were broken up into reading groups according to ability. This method presents a time problem for the facilitator. One-on-one instruction for each student in need of assistance, was a physical impossibility. Remedial reading classes were not available for first grade students. The resource room supplied assistance for students who qualified. Students who qualified must be labeled learning disabled. Additional printed instructional materials, to assist with problem areas in reading, were not available. All of the above prompted the designer to create this instructional program for at-risk students. A reading corner was set up within the regular classroom setting. This corner was used in conjunction with the regular classroom teachings.

Purpose of the Project

The purpose of instruction was to enable students, who were having difficulty with reading readiness applications, to recognize certain letter-sounds. The at-risk students were addressed, in areas of reading, where they were not before.

The main purpose of the project was for students to be able to recognize the letters b, d, t, and s and the sounds they represent. This process is called decoding. The project focused on enriching first grade students' oral-language development, as well as increase their reading ability. Associating the appropriate pronouncing sounds or the decoding of letter symbols.

Definition of Terms

1. Resource Room Student -- A student who attends the resource room for forty minutes a day and receives remedial help in areas that are weak.

2. At-risk Students -- Students who are likely not to complete their education to include a high school diploma. Handicapping conditions, learning disabled, foreign speaking, or abused children may be considered at-risk students.

3. Remedial -- Students on a remedial level of reading are generally two or more years below grade level expectations.

4. Metropolitan Readiness Test -- Administered to first grade students. Performance ratings are determined in auditory, visual, language, and quantitative skill areas.

5. I.E.P. -- Individualized Education Plan. It is a tool for management of the educational program for a child. It assures a child is provided for individually.

6. Decoding -- Refers to the ability to master the relationship between sound and the letter symbol.

Assumptions

1. That the students are demonstrating difficulty with letter/sound recognition.

2. That the students attending resource room, for one year, will improve their reading ability.

Limitations

1. That the instructional program described in this project was designed for first grade students displaying low performance rating results in the Metropolitan Readiness Test. In addition, students displayed poor reading readiness skills in kindergarten, within the Albany Avenue school in Farmingdale, New York.

2. That the instructional program may not be suitable for other first grade classes in other school districts, states, or countries, because their students may not demonstrate the same reading readiness weaknesses or perform on a low performance rate scale. Dissimilar backgrounds from the children in the Farmingdale

district may also be a factor.

Method and Procedures

This instructional program was based on the instructional systems design (ISD) model. The ISD model in common use today has evolved from the Interservice Procedures for Instructional Systems Development (1976). In this section, the designer describes the steps used to formulate the instructional design. The major area of instruction in teaching reading is the area of phonics. Many children learn to read by sounding out each letter, then blending each sound to formulate a word. In order to teach the letters b, d, t, and s, a reading corner was set up within the regular classroom setting. This corner was used in conjunction with the regular classroom teachings. There were four reading groups, one of which were the at-risk students for whom this program was designed. The performance objectives were as follows:

1) That the student recognizes the letters b, d, t, and s;
2) That the student distinguishes the letters b, d, t, and s, from other letters in the alphabet;
3) That the student can formulate the sound which corresponds with the letters b, d, t, and s; and
4) That the student can read words with the letters b, d, t, and s.

Analysis

The designer was faced with eight, first grade students, who displayed difficulty decoding words. Their inability to recognize letter-sound relationships led to poor test results. Other instructional materials available were not meeting the specific needs of these students.

A multisensory approach to reading was incorporated into this first grade classroom. This project focuses on the cognitive domain of learning. Development of thought processes and increased communication between facilitator and student was the goal. A large area of concentration was on verbal communication.

Within the reading corner, many big books, stuffed animals and colorful letter displays would be exhibited. This area was clearly defined with colorful posters, puppets, big books, illustrations of letters, flashcards, as well as bookshelves and pillows. Students would then verbalize the names of the animals and characters that were presented to them. The focus was on the letters b, d, t, and s. Students selected different objects or verbalized names of students that began with each specific letter mentioned. Children learned by association and reinforcement of activities.

Design

The design stage would involve several steps. According to Mager (1984), several steps are needed to write performance objectives. First, the designer conducted a task analysis, at which time pre-entry level skills were established. Performance objectives were written for each task. These performance objectives were grouped in the order most appropriate for step-by-step completion of the task. Pretests, performance checklists, post tests, and follow-up activities were created.

Development

Reading is within the cognitive domain of learning and required constant verbal communication. Within the reading corner, students worked in small groups. Activities were developed to increase cognitive abilities of the students involved. Students were shown pictures or toys, then verbalized what they saw. Each illustration pertained to a specific letter of the day; for example, the letter b. To spark interest, the designer used pictures of a baseball, batman, and a basketball for the boys and Barbie dolls for the girls. Motivation is the key with at-risk students. Letters b, d, t, and s were focused on in the development stage.

Implementation

Revisions were necessary during this stage of instructional development. Several students had difficulty absorbing too much information. The designer decided to introduce only one letter at a time so that the slow learners could keep pace. Repetition and reinforcement of a specific letter helped all the students involved. The small group situation helped the designer accomplish her goals to individualize reading instruction for students in need.

Evaluation

The evaluation stage ensured that the instructional goal and performance objectives had been met. The formative evaluation consisted of a one-on-one trial and a small group trial. The information gathered from this evaluation was used to improve the instructional materials. The summative evaluation was completed based on Kirkpatrick's (1987) four levels of learning: reaction, learning, behavior, and results. A field trial was conducted to determine that value of the materials for the target population.

Summary

The focus today within the school systems is to address the problem of illiteracy in our country. Educators have the opportunity and the responsibility to help students complete their education toward this goal. Everything one does has a basis in reading.

Creating a reading program for first grade students was an attempt to address this problem. Instructional materials were developed to help students who were demonstrating poor reading skills.

Our educational system is both challenging and rewarding to students, teachers, administrators, and parents. The New York State Department of Education, in their curriculum guidelines, focuses on giving each student the opportunity to complete their education to include a high school diploma. As educators, the responsibility lies with us to take the time to help our students realize their fullest potential.

CHAPTER 2

ANALYSIS

Introduction

Analysis is the first stage of the Instructional Systems Design. Within this phase are three main steps which must be conducted. The first step is to conduct a needs analysis. The following question must be answered: "Is there a need for this instruction and can this need be met through instruction using appropriate learning materials?" The next step is to conduct a job analysis. This step is accomplished by using existing learning materials and feedback from the learners in order to break down the instructional need into a group of smaller tasks. The final step is to conduct a task analysis. The designer chooses those tasks that are needed for instruction; each task is broken down into a list of steps that are necessary to complete the tasks, and identifies the prerequisite knowledge and entry behavior. The instructional goal, literature, existing course and material review, and a plan for design and development are included in this chapter.

Needs Analysis

In order to assure a need for the instruction, a needs analysis was conducted. A comparison between actual and desired performance must be made. A questionnaire was distributed to kindergarten and first grade teachers. The results of this survey indicated that there were insufficient reading readiness learning materials existing in the current reading program. See Appendix A for questionnaire.

The Albany Avenue Elementary School in Farmingdale, New York, was the setting for this project. The school district has piloted several reading programs in the past three years. Each of these programs consisted of basal readers and workbooks. Children read and work together as an entire class. Upon review of questionnaires distributed to colleagues, the designer identified a need for small group or individualized instruction dealing with students displaying deficiencies and weaknesses with letter-sound correlations.

Job Task Analysis

Six main tasks were identified as requiring instruction. Each of these tasks were broken down into a series of sequential sub-tasks supporting the instructional goal. The tasks were arranged based on those most important for a six year old student to recognize letter-sound correlations of letters b, d, t, and s. See Appendix B for tasks.

Target Population Analysis

The target population consisted of eight, six year old first grade students; six boys and two girls. One student was classified as learning disabled and required additional help in the resource room. Each participant was considered to be a below level learner. These students were chosen to participate in this project due to failing scores on the Metropolitan Readiness Test which was administered in the fall of grade one. Each student received a 0-4 raw score band with a negative (-) performance rating in the area of beginning consonants. This indicated that the child needs help in developing this skill. Activities related to the development of prerequisite skills are needed.

As a first grade teacher, the designer worked out a reading schedule, within the classroom setting, to include individualized or small group instruction with the target population. It is important to note that the age of these young learners had to be taken into consideration. At times, the session ran thirty rather than forty minutes in length. Dick and Carey, (1985), make reference to first grade students with regard to instructional timing, "in designing activities to be taught in a reasonable amount of time because of their limited attention span."

The resources needed were visual as well as physical modalities to encourage learning. These factors were missing in the existing language curriculum. Overhead transparencies and audio tapes were formulated for use with this group of learners. See Appendix C for overhead transparencies. All of the students displayed a desire to participate in the instruction. They were eager to use the new materials within the reading corner. An oral attitude questionnaire revealed that the students enjoyed the instruction and wanted it to remain within the classroom. The students were made aware of the importance of reading in their lives. They responded positively and applied themselves to the instruction. Even everyday situations such as reading street signs or directions on food labels affect their lives personally. Reading is required in any field of employment the children would embark upon. They were receptive to this information and discussed possible careers as doctors or even teachers.

Organizational Constraints

Money is the largest consideration in the use of media and materials in our schools today. Budget cuts have affected every school district on Long Island. The designer was able to accumulate a sufficient number of resources within the school as well as at home. If there were no constraints, additional equipment would include access to computers for small group situations within the classroom. The district was very cooperative and the designer had few constraints to overcome.

Instructional Goal

Given instruction and guidance, the students will be able to recognize and discriminate letter-sound correlations between the letters b, d, t, and s. The students will also be able to read words containing these consonant letters.

Visual media and materials including stuffed animals, toys, picture flash cards, overhead transparencies, flip charts, audio recordings, and clearly printed materials, were determined to be the best types of media and materials. A slower paced instruction schedule was warranted with below average reading students. The multi-sensory visual aspect of this instruction is expected to enhance the learning environment.

The reading corner was designed for small group instruction. Here, the lower achieving student received a structured program with immediate feedback. This setting allowed for one-to-one interaction between the instructor and the student. Positive feedback and reinforcement raises self esteem among young learners.

Literature, Existing Course and Material Review

Literature is defined as publications providing resource information on the topic. Materials are defined as instructional materials to be used within the classroom setting. Related theories, literature review, and a survey of existing courses and materials, are discussed in this section.

Related Theory

There are several theories of learning that can be related to this project. Gagne's learning domain, Skinner's Reinforcement Theory, and Bloom's Taxonomy are included in this section.

Gagne (1979) suggests that educational goals are related to instructional outcomes, especially as they relate to different categories of learning. Within Gagne's domains of learning lies intellectual skills, which require the learner to perform an activity via information or examples. One type of intellectual skill is that of discrimination. The hierarchical approach to instructional analysis is an organized set of skills used to support the instructional goal.

Skinner (1974) has conducted research on stimulus - response learning. His Reinforcement Theory applies especially to learning theory and instructor/learner relationships. The learner is actually participating with the instructor rather than passively listening or watching. Active involvement, on the part of the learner, reinforces learning experiences. "To acquire behavior, the student must engage in behavior." (Skinner, 1974). Whenever learning is happening, the learner is actively engaged in positive interactions.

One crucial step of the instructional analysis of a goal is to classify it into a domain of learning. (Dick and Carey, 1985). Identifying and discriminating the letters b, d, t, and s would be classified as an intellectual skill by Gagne (1985).

Literature Review

The sources used for a search of existing materials were the ERIC (Educational Research Information Center) database, college libraries, and professional journals and pamphlets.

Eight publications were appropriate to the topic of this project. The ERIC database listed twenty-eight publications as a result of a search using identifiers: high-risk students, decoding/reading, phoneme/grapheme correspondence, elementary education/primary, learning disabilities and remedial reading. The publications spanned different reading approach strategies for primary aged children, handling learning disabilities within the classroom, and language processing and development in first grade students. The search was narrowed down, by the designer, to eight specific publications. Not all were taken from the ERIC search.

1. Berninger, V.W. (1988). Relationship between levels of oral and written language in beginning readers. Journal of School Psychology, 26:4, 341-57. Specific reading objectives of decoding words in reading and oral language development are focused upon in this article. The author stressed the importance of language processing during kindergarten and first grade. Factors involved in reading readiness levels include auditory and visual discrimination of letters. Test validity, within these primary grades, was examined. It was determined that at the end of

kindergarten, oral language levels be tested, and at the end of first grade, word decoding and reading comprehension were good indicators of performance.

2. Dougherty, M. (1989). Building decoding and comprehension skills into whole language. New Jersey Education Association. The purpose of this article was to show how the whole-language approach to reading can lead to a positive learning environment for young learners. The whole- language approach incorporates the use of nursery rhymes and written phonics in conjunction with a basal reading program. The importance of variety of materials in reading readiness activities is focused upon. Nursery rhymes are easy to remember and recite. In written form, they can be used as reading material for the students. Magazines also lend themselves as picture dictionaries. Students are asked to cut out pictures beginning with specific consonant sounds. The entire class shares pictures and reviews the consonants being studied. It is a positive and refreshing approach to teaching young learners.

3. Leavitt, T.D. (1987). Integrating reading and writing instruction at the primary level. Maine, 1-12. Integrating reading and writing enhances childrens' skills in both areas. Young students learn that writing involves correct letter-sound correspondences, the ordering of letters in words, and the use of left to right reading and writing in the English language. Reading aloud and the sharing of written work with students, helps in the integration of the two skills. Students should be encouraged in all attempts to read and write. Positive feedback is important after recitation of written activity. Brainstorming is another

method to increase interest levels. Children enjoy voicing their opinions within group activities. The possibility of webbing; integrating reading and writing across the curriculum, creates new learning experiences for those involved.

4. Trachtenburg, P. and Ferruggia, A. (1989). Big books from little voices: reaching high risk beginning readers. Reading Teacher. 42:4, January, 284-289. This article expresses the importance of the use of interactive techniques which can improve reading skills in high risk first grade readers. One such technique was the use of a student generated big book adaptation of "Corduroy", a very popular childrens book. Students involved created their own versions of familiar stories on poster boards which then became part of a big book. Several activities, including sight word strategies, decoding techniques, and word processing, applied to first grade readers. The author also suggested twenty seven other big books for use with these activities.

In essence, the article suggests an alternative method to teaching young readers how to read. The suggestions spark creativity and interest among high risk beginning readers as well as the entire class.

5. Woodward, H. (1987). Reading problems: more phonics? Primary English Teaching Association. Washington, DC. April 20, 1987. This pamphlet was written with the intent to discourage classroom teachers from relying on phonics instruction as a remedy for students' inadequate reading performance. The theory that phonics drills will help young readers is a myth, according to the

author. The importance of phonics awareness activities to help the poor readers is stressed. One activity mentioned deals with the sounds that the letters make and incorporating each sound with the meaning of each letter. Students must know the meaning of the letter before they can formulate the sound it makes. Natural cuing systems, or familiar objects and surroundings will allow an easy transition to the beginning reader.

6. Meyer, L.A. (1986). Are first grade reading programs really all that much alike? An analysis of the labyrinth of instructional approaches to decoding, comprehension, and story text comprehensibility in four programs. (Report No. 385). National Institute of Education. Washington, DC. This study was conducted in order to examine first grade basal reading programs within our schools today: Harcourt, Brace, Jovanovich (1983); Houghton Mifflin (1979); Ginn (1976); and SRA Reading Mastery (1983). Analysis included consonant sound instruction, text-tied comprehension, and decoding aspects of each program. The article concluded that there were vast differences between the four approaches. Important findings showed discontinuity between levels within programs, emphasis on vowels, and differences in the percentage of words actually read using skills taught.

These programs varied considerably when compared. The question remains: How do educators select a series that best matches their specific needs? Each student has varied abilities and weaknesses. Specific programs do not reach each child. The need for individualized instruction in reading should be carefully considered.

7. Wait, S.S. (1989). Center your reading instruction. Instructor. 48:9, May, 42-45. The use of learning centers around the classroom stimulates students during reading instruction. This is an innovative approach which has worked well for the author. Rather than have students fill out worksheets or copy sentences from the blackboard while they wait for their reading group to meet, centers were set up around the classroom. The reading center included bookshelves with literature, poetry, newspapers, and magazines. The word-study center was stocked with interesting games using vocabulary or spelling words. A listening center incorporated the use of audio tapes with accompanying books, record player and records, and a tape recorder with tapes for the children to listen to. Children express their thoughts in the writing and publishing center. Here, they find paper, pencils, typewriter, and dictionaries. The use of computer software, word processing, can be utilized in this center. Finally, a teacher center is available to hold small group discussions or individual conferences. All in all, it is an affective way to involve students in a creative learning environment. The ideas presented in this article can be incorporated to fit a first grade setting.

8. Hillerich, R.L. (1989). Oral language and reading success. Teaching K-8. 20:1, 28-34. This study attempted to determine if skill in oral language, or efforts to develop oral language, will lead to increased reading achievement. The author found that out of 325 reports, 83 correlational research studies indicated a relationship between oral language skill and reading success. Picture books, sequence cards, and informal conversation

can give an instructor a good sampling of a child's oral language development. Limitations in a child's language ability will be identified by the use of these techniques. Vocabulary and listening comprehension are two other important measures of language ability.

The instructors role included three important elements in the development of oral language. Acceptance of a child's language or dialect in the school setting is the first step. Secondly, identifying the language needs of a student, and finally to provide for the specific language needs of the special students. Engaging in conversation by using puppets is an effective way to reach even shy children. Puppets can be used to retell stories or dramatizing. Reading to children also increases their language and reading skills. Vocabulary increases as they listen and their thinking skills are enhanced. These two factors are the basis for reading comprehension.

Survey of Existing Courses and Materials

Before beginning the instructional design, the instructional materials were formulated by the designer. These materials needed to be appropriate for first grade use. Some worksheets were located in phonics books that were no longer being used in the district. Other materials such as stuffed animals, toys, and picture cards were not available and the need for purchasing or making them became necessary. The lack of remedial reading readiness materials generated the need for this program.

Plan for Design and Development Effort

Estimated Student Effort

The estimated student effort was 6.50 hours to complete all of the materials within the total instruction. The slow learners required one-on-one instruction from time to time. Therefore, more time was spent in the reading corner by these learners. The lessons were grouped into forty minute segments each day. The average learners were able to complete their tasks within the forty minute class period.

Project Plan

The project was planned for eight forty minute periods. The PERT and Gantt charts showed the time line for development. The designer developed a PERT (Program Evaluation and Review Technique) chart and a Gantt Chart for use in this project. This displayed a major events list and time line of the development. Charts can be found in Appendix D.

The needs assessment began in February, 1990 and the summative evaluation and final report was completed in May, 1990. The designer used a PERT chart to locate any conflicts or unnecessary interruptions. The PERT chart was followed closely to meet the projected end date.

Budget

The budget for the instructional program was based on the prorated salary of the instructor and the learning materials. The prorated salary was based on instructional time at $30.00 per hour (for a forty minute period). The learning activity took eight forty minute class periods. Evaluation and grading of the students work took approximately two weeks. The learning activities consisted of some ready-made materials which were reproduced on the school district's copier, while the majority of materials were instructor made or store-bought. See Table 2 for the Budget.

Table 2

Budget for Instructional Program

Expense	Hours	Cost	Subtotal	Total
Labor:				
Analysis	25	$750.00		
Design	25	750.00		
Development	20	600.00		
Implementation	15	450.00		
Evaluation	17	510.00		
Total Labor			$3,060.00	
Materials:				
Teacher-made materials		50.00		
Classroom supplies		120.00		
Student Materials		40.00		
Total Materials			210.00	
Grand Total				$3,270.00

Summary

The analysis stage of this instructional design project included a needs and task analysis, and established the need for instructional materials that were appropriate for this program. As a result of the target population analysis, the designer identified an instructional goal: students will recognize and discriminate letter-sound correlations of the letters b, d, t, and s. Discrimination falls within the intellectual domain. This goal defines the purpose of this project. Existing literature was reviewed and analyzed. A time line and major events list were developed and closely adhered to in order to meet the projected end date. A budget for the instructional program was estimated.

CHAPTER 3

DESIGN

Introduction

Design is the second stage of the instructional systems design model. Included in this section are plans for guiding the learner via the instructor, textbooks, other instructional materials and media applications. Performance objectives are established in order to prescribe instructional tasks. The performance objectives are a detailed description of what the students will be able to do when a unit of instruction is completed. Each objective is then related to the activity. This matching process eliminates speculation of success rates in implementation. Entry level behavior or skills are identified. These skills are the building blocks of instruction and a vital component in the design phase. The instructional plan was the final stage of design.

Instructional Task Analysis

Instructional analysis of a goal includes two fundamental steps. The first is to classify the goal statement according to the kind of learning that will occur. The second step is to use an information processing analysis to describe exactly what a student will be doing when he or she is performing the goal (Dick and Carey, 1985). There are three domains of learning which apply to the instructional analysis: psychomotor skills; intellectual skills; and, attitudes. This instructional systems design relates to intellectual skills. The learner is required to apply cognitive knowledge to objectives prescribed. Any goal that requires a learner to manipulate symbolic information in one way will be an intellectual skill (Dick and Carey, 1985). Students have difficulty recognizing letters and the sounds they represent. Discrimination is an intellectual skill the designer focused on. While students recognize some letters of the alphabet, they do not match these letter figures to the appropriate sounds that they make in words. Classifying letters by sounds is an important application in a reading readiness program.

Physical objects, picture cards, and big books were determined to be the best media to deliver instruction. The use of familiar objects such as stuffed animals and toys, aided the instructor's program. These objects enhanced their visual and auditory discrimination of various letters and sound associations. The utilization of appropriate visual, auditory, and kinesthetic factors enabled the learners to learn letter sounds and symbol association. Lower achieving students needed reinforcement in areas of letter recognition. These students needed to learn at their own rate. Physical objects, such as toy figures, represented real situations to the children. These objects met two objectives: 1) They represented visual information; and 2) the students discriminated between the different sounds each object represented. Many students involved displayed short attention spans. The length and amount of material covered during each session depended on them. As the children became more familiar with the exercises, and frustration levels diminished, the length of time and amount of material covered gradually increased. The learners were able to demonstrate their knowledge after receiving constant support and positive reinforcement from the instructor. Working in small groups eliminated embarrassment and reduced frustration. The learners helped each other to achieve success.

The media selected to teach the instructional goal included: physical objects; picture cards; pretest and post test; and, a performance checklist. The basic instructional task analysis was broken down into six main tasks. The goal was to associate the letter symbols of b, d, t, and s, with the appropriate sound they make. Each of these tasks were a necessary step to achieving this major goal. The tasks were then broken down into appropriate sub-skills. See Appendix E for the instructional tasks.

Instructional Objectives

Instructional objectives are synonymous with performance objectives and behavioral objectives. The objectives are a detailed description of what students will be able to do when they complete a unit of instruction (Dick and Carey, 1985). The objectives are organized in the form suggested by Mager (1985). The instructional objectives are taken from the task analysis.

Three major components are included in Mager's model of instructional objectives. These three parts are performance, conditions, and criteria. A behavioral objective can be stated as performance or behavior that is observable. The objective must describe what the learner will be able to do. The conditions under which the learner will perform the desired behavior include the learning setting and materials given to the student. The criterion is often stated in terms of limits, or range of answers which are acceptable. Within a prescribed time span, what percentage of accuracy can be accomplished toward the task to be completed? The designer identified six instructional objectives, with related sub-skills for the instructional goal. These objectives can be found in Appendix F.

Establishment of Required Entry Behaviors

The entry behavior determines whether the student is prepared for the desired instruction. The establishing factors related to this aspect of task analysis are the age, maturity level, and academic level of the child. The question to be posed: "What does the student need to know in order to learn this skill?"

In order to establish entry behaviors for the group in question, observations in the classroom, one-on-one discussions with each student and interviews with their previous kindergarten teachers, were necessary. This information can be found in Appendix G. The instructor was aware that the design would be worthless without the required prerequisite skills on the part of the learner.

All entry behavior testing was conducted orally prior to instruction. The designer had to pinpoint which students lacked entry behavior skills. These students were placed into small group instruction. Metropolitan Readiness Test scores were also taken into consideration as entry behavior requirements. The designer required the following entry behaviors within this project: The learner must be able to:

1) recognize letters of the alphabet and be able to write them as necessary;
2) recognize basic sight words;

3) Auditorially discriminate initial language sounds of various consonants; and,

4) understand vocabulary appropriate for level.

Group and Sequence Objectives

The six instructional objectives were arranged logically. These tasks were placed sequentially when they were written in the design stage. The sequence was designed so that students could identify letters b, d, t, and s, and formulate the sounds each letter represented. The designer found that introducing only one letter per session reduced confusion and frustration among the students. The only revision made was that the instruction pace had to be slowed down to accommodate this selected group of students. The sequential order consisted of introducing the letter b, writing the letter, verbalizing the sound, writing words that began with that sound, and eventually reading sentences and short stories independently. This order allowed the learner to be fully exposed to one letter at a time, therefore increasing the retention of each letter studied.

Learning Activities Specification

The time period for learning the letters b, d, t, and s, and associating these letters with the appropriate sounds, was eight, forty minute periods. Table 3 displays the learning activity content, instructional method, and media used.

Gagne (1985) has identified nine internal processes that occur during learning. The designer has included instructional activities relating to these nine steps. The external events,

Table 3

Learning Activity Instructional Strategy Matrix

Learning Activity	Content	Instructional Method	Media
Lesson 1	Define letter B	Lecture	Printed materials
Lesson 2	Trace letter B	Demonstration	Chalkboard/ Paper
Lesson 3	Formulate sound of B	Demonstration Practice	Audio tapes
Lesson 4	Write words that begin with B	Lecture Practice	Chalkboard/ Worksheets
Lesson 5	Read story with B words	Demonstration Practice	Handouts/ Printed Materials
Lesson 6	Use words with B sound in sentences	Lecture Practice	Worksheets/ Printed materials

or the information that is being presented, must support the internal process which is the student's learning process or memory.

Gagne (1985) in identifying the nine steps of instruction begins with gaining the attention of the students and encouraging receptiveness to the information at hand. Colorful stuffed animals and picture cards served as an attention getter with these young learners. Illustrated posters and big books were included to spark interest.

Step two is to inform students of objectives. Informing six year old students was accomplished by small group discussion and at times on a one-to-one basis, depending on the student. They were aware of what was expected of them upon completion of the exercise.

In order to stimulate the students to recall prior knowledge, the designer had the students verbalize various letters and sounds they remembered. This is Gagne's (1985) third step.

The presentation of stimuli is step four. Demonstration of letter-sound relationships, by the instructor, was used to aid students on a cognitive level.

Step five entails providing learning guidance. The use of physical objects; stuffed animals and toys, made the instruction more stimulating for those involved.

Upon completion of step five, the instructor evaluated performance levels. Students were asked to recall letter-sound relationships already covered. A checklist was used to correlate these findings.

Step seven is to provide feedback. A young learner is constantly looking for positive responses to a job done well. Oral feedback from the instructor was very important to each student.

The assessment and verification of performance is step eight. An oral test, on this level, was appropriate.

The final step is the enhancement of retention and transfer. This step was accomplished by repetition of letters studied and using letter-sound relationships inside and outside the classroom.

Assessment System Specification

Evaluating student performance was an ongoing process throughout the entire sequence. It began with the entry behavior testing and continued to the last step of the sequence -- a post test evaluation.

Entry Behavior Test

An oral entry behavior test would indicate whether students possess the required knowledge to begin instruction. Any deficits would be covered before the instruction begins.

Pretest

As part of this instruction, a pretest was administered to determine if a need for instruction existed. A pretest can be found in Appendix H.

Progress Tests

Periodic quizzes were administered throughout the instruction in verbal form. After each letter was introduced an oral quiz gave the instructor a clear indication of each student's progress. Quiz results were used to evaluate the student's knowledge of each letter.

Post Test

The post test was given at the end of instruction. This form of evaluation indicated to the instructor whether the learners had mastered the required skill. A post test can be found in Appendix I.

Evaluation System Specification

Evaluations were conducted to determine the success and effectiveness of the instruction. There were two types of evaluation used for this project: the formative and summative evaluations.

Formative Evaluation

Three phases of evaluation are described by Gagne (1985), relating to the process of formative evaluation. The first is one-on-one evaluation. This initial phase entails the designer working with an individual student. This phase enables the instructor to obtain data in order to determine any possible revisions that need to be made to the materials. The second stage is a small group evaluation. Here, the designer works with a group of approximately ten students, who represent the target population. The final stage is a field trial evaluation. This stage can be used with an entire class of twenty students. This procedure encompasses the use of a learning situation that closely resembles that for which the instructional materials were intended. Each stage is designed for the revision and improvement of instructional materials.

The formative evaluation goes on through the development of instruction. Each stage helps both the designer and the students. Learners are aware of what is expected of them and the instructor gains useful information regarding instructional approach and materials. Anderson (1985), suggests collecting data that helps in the revisions of materials. The following information was planned to be collected from the three phases of formative evaluation:

1) Analysis data from the entry behavior test, pretest, and the post test.
2) Feedback from attitude questionnaire.
3) Time restraint in completion of learning activity.

Summative Evaluation

The purpose of this evaluation was to assess the value of the instructional materials. In addition, this level determines the effectiveness of the instruction and how well the materials, objectives, and test items have met the desired goal. Kirkpatrick's (1987) four levels of evaluation are widely used in the evaluation process. They include: reaction, learning, behavior, and results. In order to determine the learners' level of achievement, a written post test was planned. The results of the test, as well as a field trial, were used by the designer in order to conduct the summative evaluation.

Learning Transfer System Specification

Learning transfer refers to the application of classroom knowledge by the student. This situation entails a student applying what he has learned to new situations. Upon completion of the program, students were informed that they would be able to apply concepts of reading to other areas as well. Increased ability in reading can lead to recognizing and using letter-sound relationships when reading food labels and directions in everyday use. Broad (1982), indicates that desired results can be achieved when there is a consistent support of the instruction involved. Learning transfer is successful with those students who can apply what they have learned to new situations around them.

Review and Selection of Existing Materials

Within the analysis stage many sources were found to include problem areas in beginning reading instruction. One such publication was appropriate for the target population in question. The National Institute of Education (1984), cited specific reading program objectives. The report of the Commission on Reading provided useful information to the designer.

Summary

The design phase began with a task analysis. The instructional goal was determined to be an intellectual skill and instructional objectives were written for each task. Each objective was listed in sequential order so that students would familiarize themselves with the format of instruction. Entry behaviors were identified and documented. Methods and media for each lesson plan were identified and an evaluation process using formative and summative evaluation procedures was included. A pretest, post test, attitude questionnaire, and a performance checklist were used for evaluative assessment. Suggestions were made for the transfer of learning and a review of some materials was included. An essential part in the development of the instructional strategy was the design phase.

CHAPTER 4

DEVELOPMENT

Introduction

The third stage of the instructional systems design model is development. The designer described the sequence of the learning activities developed as well as the process involved. Training materials were reviewed and evaluated. The need for concrete teaching methods was indicated by students still having difficulty with letter-sound identification. Physical objects such as toys and stuffed animal figures were used to teach the consonants b, d, t, and s, and to associate these consonants to their appropriate sounds. Picture cards and illustrations using big books, were then used to reinforce consonant letters being taught. A reading corner incorporating these learning activities for use with the target population was the outcome of this project.

Learning Activity Development Scheme

The designer used five phases incorporating the five major components of an instructional strategy, as described by Dick and Carey (1985), to develop the learning activity:

1) Pre-instructional activities -- consisted of motivation, objectives, and entry behaviors.
2) Information presentation -- the sequencing of lessons presented to the student, size of the unit, materials provided in instruction to be presented, and examples.
3) Student participation -- providing the students with activities that are directly relevant to the objectives;

practice and feedback.

4) Testing -- pretest, oral test, quizzes, and post test.

5) Follow-through activities -- focusing on strategies for remediation and enrichment materials.

The designer began the development by considering entry behavior levels. A questionnaire was sent to kindergarten teachers requesting information regarding problems they may have encountered with letter-sound correlations. In addition, questions were posed to other faculty members, including first and second grade teachers as well as the school's reading consultant. See Appendix A for questionnaires. The questions focused on possible curriculum changes to enhance the existing reading program. Interview results were favorable and displayed their desire to incorporate new concepts into the existing basal reading program. Upon receiving positive feedback from faculty members, the designer felt confident about this proposed learning activity.

Before presenting any new materials to the students, the instructor wanted to gain the attention and interest of the learners involved. The reading corner was set up within the classroom. The instructional setting was to be as close to reality as possible. All materials displayed would be included for everyday use within the reading corner.

The prerequisite skills to begin the instruction included oral recitation of the entire alphabet. Students who could verbalize each letter in isolation were ready for instruction.

The objectives determined from the instructional goal were combined into a logical sequence of lessons. Class lessons were about forty-minutes in length each day. The objectives of the lesson, which were described in the instructional goal, were placed into a logical sequence for presentation according to the length of the lesson and the allowance of time per session. Students were informed through oral instruction that, by the end of the program, they would be able to recognize consonant letters and associate these letter figures with the appropriate sound they make.

With the sequence in place, the instructor familiarized the students with objects and materials to be used within the reading corner before the beginning of instruction. The students were made aware of rules they would follow during this instruction.

The designer chose to utilize audio taped recordings of letter-sound relationships. The letter B and the sound "buh" were stated, and words beginning with this sound were included. Students were able to associate the letters and sounds and practice each one in isolation.

Evaluation and testing methods were then determined. Entry level testing was conducted orally before the actual instruction began. Any students who lacked entry level skills were instructed in weak areas. The instructor used Metropolitan Readiness Test results as a pretest indicator. Students displaying low scores in letter-sound relationships made up the target population. A written pretest was also used to establish a positive need for instruction among these students. Periodic oral quizzes were used as a guideline for the instructor. These oral quizzes gave indications of mastery or possible remediation and reteaching. The post test was given upon completion of the total instruction. It was administered as a written test measuring the skills learned throughout the instruction.

Follow-up activities allowed students who had difficulty to have remediation activities and enrichment activities and allowed those students who had totally mastered the desired skill to move on to more challenging activities. It is important to note that students who mastered the procedure served as peer tutors for students requiring additional practice. Peer coaching was a positive experience for all students involved.

Learning Activity Development

Reading requires the learner to apply cognitive knowledge to objectives prescribed. The student must manipulate symbolic information, therefore describing an intellectual skill. According to Dick and Carey (1985), there are four different types of intellectual skills: discrimination, concepts, rules, and problem solving. In order to complete the desired goal, several different methods and media were chosen to present the information needed. The designer took into consideration that certain instructional components must be included in developing the learning activities for this instructional design. They are as follows:

1) Motivation. Physical objects including toys, animal figures, and everyday objects around the classroom, made the learning environment interesting and appealing to the learners. This visual display gained interest not only at the onset of instruction but throughout the entire program. The fact that the reading corner was a separate entity, was special to the students.

2) Small Group Discussion. This step informed the learners of the objectives to be met. This process stimulated recall of prior learning. Students were asked to initiate discussion about the objects and materials.

3) Presentation of Stimuli. The objects including toys and stuffed animals, were presented in the initial phase of instruction. The instructor gave verbal information on each object displayed.

4) Demonstrations. A demonstration was observed by all students involved in the activity. Flash cards with letter symbols were easy and fun to use. Colorful letters and pictures stimulated responses and participation among learners.

5) Overhead Transparencies. This media was used as a visual form of reinforcement. Transparencies were beneficial to both instructor and student. Students could affectively visualize letter symbols within a group. In relation to the instructional goal, it was an aid in recognition and discrimination of letter symbols and pictures associated with each letter.

6) Eliciting Performance. The learners were asked to demonstrate what they had learned by using the new materials. They demonstrated this knowledge by verbal interaction within the small group.

7) Feedback. Reinforcement for the performance achieved by a student was provided by the instructor. A performance checklist for each student was developed. The checklist

provided an immediate assessment of the performance and gave the student the feedback needed. From time to time, a copy was sent home to parents for review. Results were tabulated by the designer. The checklist was utilized to keep track of cognitive skills that had been learned. Correct answers, on the part of the students, were praised by the instructor.

8) Assessing Performance. An oral quiz was used at the completion of each lesson. Audio tapes were made of each student's responses. These tapes were then used by other students in order to help them to discriminate between the different sounds. Students heard their own voices, which added variety to the instruction.

9) Retention and Transfer. A post test was used to measure retention. Students were asked to match beginning consonant letters of b, d, t, and s, with the appropriate illustrations or pictures. Transfer of learning occurred when the learners were able to formulate the sounds of initial consonants b, d, t, and s to make new words.

Follow-through activities included remediation for students not mastering the instructional goal. The instruction was revised to include flip charts made by individual students needing additional practice. Letter figures and pictures of consonant letters students had difficulty with, were posted on chart paper. This new addition to the instructional strategy became an entire group activity. Enrichment activities were planned for the learners who scored well on the post test. Story books, with illustrations, were created by students who had mastered the instructional goal.

The development of the instructional materials began with the clustering of lessons into a logical sequence. This general outline of lessons provided guidance in the selection of methods and materials for each session. Upon completion, pre-instructional activities were planned. The pretest consisted of matching initial consonants with appropriate illustrations. The purpose of the pretest was to determine how much prior knowledge students possessed of what was to be taught. The post test consisted of the same procedure. The post test measured whether the learners had achieved the objectives prescribed in this instructional design.

Instructional materials used for learning activities were compiled. This design incorporated a multi-sensory approach using toys, stuffed animals, objects within the classroom, picture cards, big books, and posters. The use of toys and other familiar objects maintained each learner's attention throughout the instruction. Each object represented a consonant being focused upon. Boys were interested in sports, therefore a basketball or baseball was displayed, representing the letter B. Students then selected other objects or pictures that began with the consonant B. After selection of physical objects, the students were asked to select the letter B from flash cards displaying each letter of the alphabet. Upon completion of this exercise, the instructor verbalized the sound that the letter B makes. The learners then repeated this sound and held up their flash card displaying the letter B. This procedure was repeated for the letters d, t, and s.

Visual reinforcement was an integral part in designing this instruction. The use of toys and stuffed animals encouraged positive learning behaviors and outcomes. The use of overhead transparencies also sparked interest and awareness of letter figures. Colorful reward stickers were given to students upon successful completion of specific tasks. Verbal reinforcement was used in the form of encouraging statements to the learner to provide positive reinforcement.

In addition, a performance checklist was used to assist the designer during the course of instruction. The checklist consisted of tasks the learner achieved before and after instruction. See Appendix J for checklists.

Learning Activity Review

The designer reviewed the materials for accuracy and appropriateness. Materials for this learning activity were also reviewed by the language consultant on staff. All critical steps had been taken and were appropriate. This subject matter expert was called in to verify that the content of the instruction presented was technically accurate. Other first grade teachers reviewed the materials as well. Their positive input aided the designer in producing this learning activity. Attitudes, on the part of the students, were important factors to the instructor. An attitude questionnaire was completed by each learner in order to elicit their feelings about the materials and lessons.

Materials for Evaluation Produced

The medium for instruction was physical objects consisting of toys, stuffed animals, and everyday objects around the classroom. In addition, picture cards, big books, and colorful posters were used. All materials were constantly used in instruction and were shared among the learners. A total of five copies of the learning activity packet were reproduced.

Summary

The development stage of this instruction was geared to individualized or small group situations. The instructional goal was for the students to discriminate letter-sound relationships of letters b, d, t, and s. The outcome of the development stage produced an outline of the lesson plans with supporting activities and materials. The materials were reviewed by the designer, colleagues and a language consultant within the school for consistency and accuracy. The instructional package included an oral entry behavior test, a pretest, oral quizzes, post test, learning objectives, physical objects, picture cards, big books, overhead transparencies, and posters. Five copies of the printed materials were reproduced to carry out the instruction.

CHAPTER 5

IMPLEMENTATION

Introduction

The process of putting the instructional program into operation is referred to as implementation. This project dealt with the instruction of reading. The project is presented in sequential form from start to completion. A course description for reading in grade one includes three areas: language skills, decoding skills, and comprehension skills. The focus of this project was on decoding skills. The students were introduced to a variety of instructional materials which were reproduced for implementation. This project was formulated to meet the needs of individual students at-risk. It offers visual and auditory modalities within a classroom setting to teach reading readiness activities. Within this chapter, the instructional delivery is summarized and data was collected. All errors were found and corrected during the one-on-one and small group trials.

Materials for Implementation Reproduced

Selection of the medium that was used to deliver the instruction consisted of concrete objects, letter flash cards, overhead transparencies, flip charts, big books with colorful picture displays, and various printed materials. In addition a pretest, post test, and performance checklists were reproduced. See Appendix K for materials that were developed for this project.

Materials described were chosen for use in a reading corner, set up by the designer, within the classroom. Flash cards were easily accessible and helpful aids for either self or instructor-led reinforcement or review of letters. Overhead transparencies were useful for a small group. Use of colorful illustrations helped students recognize and discriminate between letter symbols and pictures associated with each letter.

Additional materials reproduced during implementation included: two flip charts with initial consonants and illustrations; various printed materials, such as ready-made worksheets, which were useful for self-pacing activities; audio recordings of student's recitations of consonant letters; as well as physical objects, where students related everyday objects to consonant sounds.

Instructional Delivery

The entire class of twenty students were given a pretest in April, 1990. The test consisted of matching initial consonant sounds with the appropriate pictures. The post test consisted of the same procedure that was administered after the instruction had been completed in May of the same year.

The lessons were delivered in conjunction with the regular first grade reading program and particularly as an enhancement for students having difficulty decoding words. A pretest of entry behavior skills was used as well as periodic oral quizzes. It was important for the designer to assess performance levels periodically. A post test was administered at the end of instruction. The act of communication through reading was emphasized by oral discussions and role playing exercises within the group.

The designer's instructional goal was to have students recognize and use the letter-sound relationships of letters b, d, t, and s. The students were not able to discriminate between these letters and formulate the sounds they made. These students were not reading on a first grade level. To deliver this instruction, the designer used a multisensory approach, involving the use of physical objects to represent letter sounds as well as visual aids and audio tapes. The first step was to gain their interest and attention. The designer felt the need to encourage the students' positive feelings toward reading. Without a positive approach, reaching young learners would be difficult. The reading corner displayed colorful pictures, big books, posters, stuffed animals, and various toys. Each picture or display represented the consonants on which we were focusing. For example, the students were asked to choose a picture that began with the letter T. Display items included a train, a toy, and a table.

The next step was for the learner to select the letter T from flash cards along with pictures of T words. Each process is repeated for the letters b, d, and s. The entire alphabet was displayed so that the students could select the letter T from other letters. The students were than asked to cut out pictures that began with the letter T. All pictures were mounted on poster board and hung in the classroom. This activity gave students a sense of accomplishment and pride.

Audio recordings were used as a tool for reinforcement. Each student formulated the sound which corresponded to the letter B ("buh"). Audio recordings of B words were made by each student.

Each child listened to other students' recordings as well as his own. Flash cards displaying letters b, d, t, and s were used as an informal test review. The instructor read words beginning with b, d, t, and s. Each student held up his B flash card when he heard the "buh" sound in the beginning of a word. Individual resource boxes were kept by each student. Students listed names and objects that were familiar to them that began with the letters b, d, t, and s. Within the box, were index cards of words the students had mastered.

Finally, the students read words and short stories with initial consonant sounds in question. Sentences were prepared using mastered words. The designer videotaped these oral recitations giving immediate feedback and positive reinforcement to each student. Oral language development was enhanced with this activity.

The existing kindergarten program did not focus on reading readiness activities. The students in question were at risk of failure. The learners involved had varied abilities and characteristics. The instructional delivery was geared to match these individual needs. See Appendix L for lesson plans.

Data Collection

Data collection describes the instruments and process for collecting data for the summative evaluation. The instruments of data collection that were used in this project were as follows: teacher observation, faculty interviews, teacher checklists, student performance checklists, pretests, quizzes, and post test evaluations.

Summary

The reading corner was designed for reading instruction aimed at below level learners, although all students benefitted from its' use. The activities were rewarding for all participants.

Within this chapter, the designer has demonstrated how implementation was conducted during instruction. The target population consisted of middle socio-economic boys and girls in the first grade who displayed below level abilities in reading. All participants were given an entry behaviors test, pretest, and post test. In addition they were given an attitude questionnaire, and performance checklists for use at home. The implementation took place within a time span of eight periods of instruction.

CHAPTER 6

EVALUATION

Introduction

Evaluation is an ongoing process beginning with analysis and continuing after implementation has taken place. The evaluation process allowed the designer to assess student performance and allow for any revisions to the instructional goal. The information collected during evaluation allows the designer to establish a better instructional delivery. Two types of evaluations were conducted: a formative evaluation and a summative evaluation. The summative evaluation examined the results of all activities that transpired during the implementation phase.

Formative Evaluation

Formative evaluation is described by Dick and Carey (1985) as the collection of data and information during the development of instruction which can be used to improve the effectiveness of the instruction. There are three phases of formative evaluation: one-on-one evaluation, small group evaluation, and field trial. Instruments that were used in the collection of data were as follows:

1) Teacher observation -- during a reading/language arts session, provides the teacher with valuable insight. Observation of oral responses during discussions with the students are valuable for assessing individual needs. Students displayed difficulty relating letter symbols with the sounds they make. The basal reading program is geared to sounding out individual letters to

read a word. These students could not perform this skill.

2) Faculty interviews -- Interviews were taken as a point of reference for the designer. Kindergarten teachers gave insight into the backgrounds of their former students. Interview questions dealt with social relationships, verbal ability, personal characteristics, and special needs.

3) Teacher checklists -- These lists were used to chart each student's ability in distinguishing letter sound recognition. The checklists were used on a day-to-day basis. It is important to note that each student took a student's performance checklist home for use with a parent or guardian. This supplied each student with reinforcement at home. Checklists were updated weekly, indicating skills mastered and those yet to be learned. A student checklist can be found in Appendix M.

4) Pretest -- These pretests consisted of letter associations and were administered prior to instruction to test which letters gave students the most difficulty. Pretests indicated areas of weakness and strength. The pretest was an indicator to the designer of a student's lack of knowledge in a particular skill. A pretest can be found in Appendix H.

5) Quizzes -- These were used in verbal form. After each letter was introduced an oral quiz was administered. Results were documented on a checklist for each student. Quizzes evaluated students' knowledge of each letter.

6) Post test -- The post test was administered upon completion of various skills. Areas tested included recognition of initial consonants in isolation, matching words that began with the

same sound, and identification of upper and lowercase letters. The post test gave a clear indication of mastery levels among all students. A post test can be found in Appendix I.

Two basic steps were conducted during this phase. As suggested by Gagne (1985), they are the one-on-one trials, and small group trials. General outcomes of these steps are discussed by the designer.

Six objectives were tested by a performance checklist with each reading group before the actual instruction. The performance checklist results gave the instructor a distinction between students who required individual help and those who had mastered these skills. Performance checklists can be found in Appendix J.

One-On-One Trials

The purpose of the one-on-one evaluation is to identify and remove any errors or flaws in the instruction. The one-on-one evaluation allowed the designer and the learners to have total interaction. During this stage, the designer worked with two learners from the target population. Student one scored an average rating according to the Metropolitan Readiness Test; student two scored the lowest grade according to the same test. The two learners were both boys and were from the same socio-economic background. Testing the materials against the range of abilities was important in obtaining the goal for this instructional systems design project. The performance rating chart corresponding to raw scores for level two can be found in Appendix N.

It was important for the designer to create a positive rapport with the learners. Individual attention was given to each student.

They felt very special to be chosen for this project. They were asked to assist the designer in reviewing new materials for their school. A one-on-one discussion about various topics made the students relax. The students were informed of the procedures for the session.

Prior to instruction, both students were given an oral test. The test consisted of beginning consonants and sound/letter correspondences. A sample question was: What letter-sound begins with the word cat?

Student one succeeded in getting 19 out of 20 responses correct. Student two struggled for responses and succeeded in getting only 4 out of 20 responses correct. Student two had the most difficulty with letter-sound correspondence. This student could not put the sound of the letter together with the symbol it represented. This test identified appropriate activities for further instruction aimed at students who did not master the previously mentioned objective. The designer was faced with producing materials that could help students recognize letter-sound relationships.

The purpose of the one-on-one evaluation was to work individually with each student to obtain data to revise the materials used. Revisions were made in the instructional materials after the one-on-one evaluation. The designer found that the most frequent errors were made with letter-sound relationships of letters b, d, t, and s.

Instruction was then administered according to the lessons described in chapter five. After instruction, student one, who had no difficulty with the materials, lost interest as he completed each task in a short amount of time. For student two, the amount of time required to go through each exercise was more time consuming. The designer had to repeat many phrases several times. There was a definite need for further instruction. Student one was able to achieve the required performance with a perfect score of six. Student two was able to master an additional three objectives after instruction. The six objectives described in the performance checklist were used to evaluate the one-on-one results. The designer considered a score of four objectives as a goal for mastery. Both students displayed interest and enthusiasm toward the instruction. The following table reflects these results.

Table 4

One-On-One Evaluation
Results

Student Number	Pre-Instruction Skills Mastered	Post-Instruction Skills Mastered
1	3	6
2	1	4

The designer realized that the one-on-one situation was an ideal teaching and learning atmosphere. Upon completion, it was determined that student two was still having difficulty understanding and performing. This indicated that other students, below grade level in reading, would have similar difficulties. The changes that were made as a result of the one-on-one trials reflected these findings: lessons were shortened to accommodate attention span of learners, more examples of letters were displayed in isolation of other letters, and more reinforcement measures were used to spark interest.

Direct interaction between the designer and the individual student led to a positive rapport. An oral attitude survey showed that the students were positive and eager to complete the instruction. Both students were familiar with their surroundings in the reading corner which was set up within the classroom. They were comfortable with the designer and materials. Although student two had difficulty with the responses to the oral test, he was alert and responsive.

Small Group Trial

The small group instruction was designed to determine the effectiveness of the changes made within the one-on-one evaluation. In addition, any remaining problems, in the instruction or materials would be identified and rectified. This type of instruction actually tested whether or not the learners could produce without total interaction with the designer. This type of instruction was difficult to evaluate without the designer interacting with the students. The students were young and looked for constant direction. Small group evaluation indicated that some learners followed the instruction with interaction with the designer, while others did not.

Four students were chosen for small group evaluation. The group consisted of three boys and one girl, each with varied learning abilities. Student one (male) and student two (female) were average students performing on grade level in reading while students three and four (both males) were below level reading students. Students three and four were two of the original eight students in the target population. The four students mentioned were all six years old.

The designer found that by slowing down the instruction and focusing on individual letters each day helped the students greatly. The use of physical objects and illustrations brought letter symbols to life for these students. The six objectives described in the one-on-one evaluation section were used to evaluate small group performance as reflected in Table 5.

Table 5

Small Group Evaluation
Results

Student Number	Pre-Instruction Skills Mastered	Post-Instruction Skills Mastered
1	5	6
2	4	6
3	2	5
4	1	4

In small group evaluation, it became clear which students needed further instruction. Students three and four had shown improvement by each mastering three additional objectives. The designer designated a total of four objectives as a passing guideline for all students. Student three still had difficulty reading words with letter-sound in medial and ending positions. Student four was able to identify, distinguish, and write each letter, yet had difficulty applying these skills to the reading of words. Students one and two enjoyed the instruction, yet they did not require further evaluations. By using two students representative of one subgroup within the class, which were students reading on grade level, the designer was better able to evaluate the materials. Students one and two completed the instruction with a minimal amount of intervention with the designer. Students three and four needed constant direction with each activity. It is important to note that the slower learners looked to their peers within the small group, as well as the designer, for direction. This grouping of high and low level students created a positive learning environment for the below average students.

Small group evaluation indicated specific skills that were necessary to incorporate in the instructional materials. Changes were made to include more extensive instruction in the printing of letter symbols by the students. Another skill which required attention was the fact that student three exhibited reversals of letters b and d in reading words. Further investigation into this reversal problem is warranted. This student was recommended for testing within the resource room to correct this problem. He was evaluated and classified as learning disabled. No further changes were necessary and all the changes made after the one-on-one evaluation were positive. See Appendix O for worksheet on letter reversal.

Pilot Test

The primary purposes of conducting a field trial are to determine the effectiveness of the changes made upon completion of the small group evaluation, and to determine if the learning materials can be used in the environment for which they were developed (Dick and Carey, 1985). A field trial was not conducted during the formative evaluation period. Further revisions were not necessary after the small group trial.

Summative Evaluation

The summative evaluation is the final evaluation of the effectiveness of instruction. Its purpose is to assess the worth of the instructional materials that were designed for the target population. In addition, it is the collection and interpretation of data, and information for the purpose of determining the value of instruction. Implementation was conducted to assist in the collection of such data and the evaluation. The group for the implementation evaluation consisted of the entire class, made up of eleven boys and nine girls. Due to the nature of a classroom setting within a public school, all twenty students participated in the evaluation. Six of these students had already participated in one-on-one and small group sessions. The designer felt the instruction would be an enrichment experience for those learners. The scores for these six students are not reflected in Table 6 since they were referenced in the formative evaluation section. This large group of twenty students were divided into four groups consisting of five students in each group. These individual groups were divided with varied abilities in reading skills (such as high, average, and low). The reasoning behind this set-up was due to small group evaluation findings. Some lower achieving students tried to mirror the behavior of higher achieving students. The designer found that grouping the learners in this way created a positive learning environment.

The same procedure was followed as that in one-on-one and small group trials. Each student was given the same materials and amount of time to complete it. The results of pre-instruction field trial indicated some levels of frustration from students unable to complete specific skills. Several students completed all skills, displayed no frustration, and enjoyed the materials. As in other levels of evaluation, instruction was then administered according to lessons in chapter five.

The results of implementation showed a marked improvement in student performance. A summary of these results were as follows. One student scored two or below. This student scored a 0 during pre-instruction. This was the only student who had not mastered four objectives which was the designer's goal for the instruction. Three students scored a four. Students scored a 0 or 1 during pre-instruction. Three students scored a five. Each student had scored a one, three, and four during pre-instruction. Seven students scored a six. Each student had achieved the desired goal. The post test took forty five minutes from start to finish. Six objectives were tested by use of a checklist. This checklist can be found in Appendix J. The results can be found in Table 6.

The designer found that all students involved in field trial evaluation worked hard during instruction. Although they were only six years of age, they were eager and willing to attempt success in all areas. The designer was pleased with the enthusiasm shown by the participants during instruction. An oral attitude survey was taken by the designer in order to record opinions about the materials used. Questions were as follows:

1) Were the materials interesting?

Table 6

Implementation Evaluation
Results

Student Number	Pre-Instruction Skills Mastered	Post-Instruction Skills Mastered	Skills Mastered Number Gained
1	1	5	4
2	3	6	3
3	3	6	3
4	4	6	2
5	5	6	1
6	1	4	3
7	5	6	1
8	4	5	1
9	0	2	2
10	0	4	4
11	3	5	2
12	4	6	2
13	4	6	2
14	1	4	3

2) Did you understand what you were supposed to do?

3) Were the materials too difficult?

4) Were the materials too easy?

5) Did you enjoy using the materials?

Ninety percent of all responses were positive. Only ten percent indicated the materials were too difficult or they didn't understand. With proper instruction and clear and precise materials, first grade students can become independent learners. When the students adjusted to working in groups, the designer's role changed from facilitator to observer/director. For the one student who scored less than fours it is expected that re-teaching and practice will bring up these scores. The summative evaluation was based on Kirkpatrick's (1987) four levels of evaluation which consist of: reaction, learning, behavior, and results. The purpose of the evaluation was to assess the strengths and weaknesses of the lessons. The summative evaluation section contains a complete description of the evaluation made of the target population consisting of twenty students.

Reaction

This area of evaluation dealt with the participants' thoughts or reactions towards the program. The reaction level does not include a measure of learning abilities. Were the students pleased with the program? The reaction level is extremely important to the instructor. This level can indicate both positive and negative feedback. Reaction is a critical factor when dealing with primary age children.

Reaction level was measured by observations and an oral attitude survey consisting of six questions. The survey questions can be found in Appendix P.

The participants were asked to number their pages from one to six. The students then wrote their responses, either yes or no, as the designer read each question. Each participant was asked the questions individually. The designer did not want the students to be swayed by their peer's responses. See Table 7 for reaction questionnaire results.

Table 7

Reaction Questionnaire
Results

Question	Yes	No
1	19	1
2	20	0
3	0	20
4	19	1
5	19	1
6	20	0

The results clearly indicated to the designer, that the participants displayed a strong desire to use the materials that had been presented to them. The students were motivated to work. In many cases, this program sparked interest in children who had not actively participated before. This group felt pride and accomplishment each time they achieved a goal. The reaction level does not include a measure of the actual learning, it measured the attitude of the learners' towards the materials and content. In addition, a favorable reaction does not always guarantee that learning will occur.

Learning

The learning level of evaluation measures what the participants learned in the program. The focus is on the learning of principles, facts, techniques, and skills presented in the program. The learning level of evaluation was more difficult to measure than reaction. The measure used to evaluate this learning performance was a paper and pencil test. This form of measurement was the most appropriate to the program objective described in this project. See Table 8 for evaluation results.

The designer chose to test whether or not the students had gained cognitive knowledge in the recognition of initial consonants. A pretest and a post test were designed with ten questions in each. The pretest consisted of illustrations. The students printed the appropriate initial consonant on the line in front of the picture. The post test was administered one day after the students were given instruction. The students scored very well in post test evaluation. Children who achieved the major objectives of this instruction were able to do the following:

1. Recognize consonant letters b, d, t, and s.
2. Distinguish consonant letters b, d, t, and s, from other letters in the alphabet.
3. Formulate sounds which correspond with consonant letters b, d, t, and s.
4. Read words with b, d, t, and s, located initially, medially, and in ending positions.
5. Formulate sentences using b, d, t, and s words.

Behavior

The program of instruction can affect general changes in a participant's behavior. Changes in behavior produce results that can be measured. Kirkpatrick (1987) identifies several guidelines in terms of behavior which include: before and after comparisons; observations from superiors, subordinates and peers; statistical comparisons; and long range follow-ups.

Behavior changes produce measurable results that can be tabulated over a period of time. For the purposes of this project, evaluation was measured before and after instruction. Students' performance was measured and posted. The designer measured behavior of the entire class of twenty students. Although six students passed during pre-instruction, they were included in the instructional group since the field trial population consisted of a regular first grade class. The designer used the score of four as a pass/fail grade for students. These results can be found in Appendix J.

It is important to note that a post test should be repeated after approximately three months to measure retention of specific skills. Teacher observations are an ongoing process.

Table 8

Behavior Evaluation
Results

Status	Pre-Instruction	Post-Instruction
Passed	6	19
Failed	14	1

Results

Evaluations at this level relate the results of the program and how it affected the improvement of behavior. Levels of improvement were measured before and after the program. Prior to program implementation, the students lacked materials that would enrich their reading ability. This program brought new methods and ideas into the classroom. After the project was completed, the students involved increased their letter identification, auditory discrimination, and oral language skills. These measurable outcomes are all examples of results.

The designer felt that this was the best method of instruction dealing with young learners. The instructor knows exactly what learning has taken place. The learners enjoyed working in individual groups which consisted of a small number of students. Working within these small group situations allowed many students to build confidence and self-esteem. They felt important to be part of this program.

Learning Transfer

Supporting the theory of learning transfer is brought to light in an article by Broad (1982). It emphasizes the importance of learning transfer in the instructional design for purposes of improving performance in the education process. At times, important ways to improve results are overlooked. Desired results can be achieved when there is a consistent support for the transfer of learning. Development of support for learning in other classrooms and areas can be achieved, through energetic efforts. This new technology requires continued support of the teachers involved. In turn, the students will display a marked improvement.

Summary

This chapter included the formative and summative evaluations which were conducted by the designer. The formative evaluation was conducted through a one-on-one trial consisting of two students, and a small group trial consisting of four students. Upon completion of data collection, a performance checklist was used to evaluate the performance of the participants.

The summative evaluation included implementation and encompassed four levels of evaluation: reaction, learning, behavior, and results. The reaction of the students was extremely positive. They thoroughly enjoyed participating in the reading corner which the designer felt created an atmosphere of learning for first graders. It was evident that the sessions spent within the reading corner created a positive and valid learning experience. Both instructor and students benefitted from this experience. The reading corner will be a permanent fixture in the designer’s first grade classroom.

CHAPTER 7

SUMMARY AND RECOMMENDATIONS

Introduction

This chapter provides a summary of the instructional project described in this document. Chapter one explained what the designer expected to occur during the five steps of instructional systems design. Chapter seven explains exactly what actually happened. This chapter concludes with recommendations that may assist other designers by providing a detailed analysis of an instructional project. Recommendations may help extend this project to different populations.

Methods and Procedures Used

The five stages followed for the instructional project were: analysis, design, development, implementation, and evaluation. A multi-sensory approach involved the use of physical objects to focus upon the decoding of specific letter-sound correlations.

Analysis

The designer conducted a needs analysis, job task analysis, a target population analysis, and an analysis of the instructional goal during this stage. The instructional need was based on responses from colleagues and low reading test results in first grade. There was a need to identify new and improved methods for teaching reading readiness materials to meet the academic requirements of the at-risk student. The need to create more visual stimuli was confirmed in the analysis stage by using physical objects as a tool for instructional purposes. The need for new instructional materials was supported by the lack of existing reading readiness learning materials.

The target population consisted of twenty students, who were six years old, enrolled in the first grade. Of these twenty students, eight displayed areas of weakness in letter-sound associations. The students who were below average readers and potentials for failure made up the target population.

Physical objects (stuffed animals and toys), alphabet cards, pictures, big books, and printed materials were the media chosen for the instructional project. A reading corner was developed to meet the needs of individual students. Instruction was administered at a slower pace to accommodate students at-risk. The instructional goal of discriminating letter-sound associations between the consonants b, d, t, and s was divided into six main tasks, which were subdivided into several steps required to complete each task accurately. The designer gathered existing literature on primary reading activities in decoding for analysis of its appropriateness for the target population.

The designer developed a major events list and time line at the beginning of the project. The project began in February, 1990 and ended in May, 1990. PERT (Program Evaluation and Review Technique) and Gantt charts were developed and used to locate any unnecessary interruptions or time conflicts. The projected cost was kept within a reasonable range. The budget reflects the cost of the instructional program.

Design

During the design stage the designer identified six main tasks to master the required goal. The objectives were listed in a logical, sequential order. Entry behaviors were defined.

Test items were developed during the design phase. The instructional materials contained an oral entry behaviors test, periodic verbal quizzes, and a final post test.

Development

Methods suggested by Dick and Carey (1985) were used by the designer for developing the individual instructional material. Lesson plans were formulated which included methods and media. The time estimate of eight sessions of forty minutes each was established. A questionnaire was sent to colleagues prior to presenting the instructional package. Suggestions were taken into consideration; slowing down the pace of instruction and small group situations for individualized remediation. Both suggestions were incorporated into the program.

The oral entry behaviors test, oral quizzes, and post test were written from the performance checklist. Positive reinforcement was constantly administered by the instructor and by student performance checklists sent home to parents.

The package was reviewed for accuracy and content by the reading consultant and colleagues. Twelve copies of the printed materials used were produced.

Implementation

Implementation began on April 9, 1990. The learning activities were conducted within the reading corner. Some activities were instructor-led while others required independent work on the part of the student. During this stage, the instructional delivery was described and data was collected for use in the summative evaluation.

Evaluation

The formative evaluation was conducted during the development stage. The designer used one-on-one evaluation and small group evaluation. As a result of this evaluation, revisions were made in the delivery of the instruction to accommodate individual learners and to improve the quality of instruction. Problems that were identified with the learning materials and timing were corrected. Test results were recorded and analyzed. The revisions were carried out during the implementation stage.

The summative evaluation included the four levels of evaluation which consisted of: reaction, learning, behavior, and results. The purpose of this evaluation was to assess the success of the instruction. Test results were recorded and analyzed. Attitude reactions were measured by observations and an oral attitude survey.

Conclusions

Evaluating the implementation stage and the post test learning evaluations, led the designer to conclude that the reading readiness activities within the reading corner should be a combination of small group and individual activity. The learners enjoyed the use of familiar objects (toys and stuffed animals) and the joining together in small groups. They thoroughly enjoyed participating in the reading corner which created a positive atmosphere for learning. Flexible use of the instructional materials met the needs of the students.

Upon completion of this instructional program, all of the students displayed enthusiasm. Several students decided to create their own story books to donate to the school library. Their interest in reading and writing had been elevated to higher levels of understanding.

The designer was pleased that the post test results were so positive. While many students had not passed the pretest, all the students involved passed the post test. This gave them a sense of pride and accomplishment. As a result of the success of this project, other first grade classrooms have incorporated a reading readiness corner within their classrooms.

Recommendations

1. If at all possible, the designer feels that the actual target population be used for this program. Average first grade students, who are not at-risk, would probably not require this type of instruction. This is not to say that this program would not serve well for enrichment purposes for all students. Evaluation, based on a different population may produce different results.

2. Conduct a district wide survey to determine the current size of the at-risk population of first grade reading students.

3. The applications of classroom activities in reading must be realized within a child's day to day experiences. Students become aware of the beneficial aspects of knowing how to read in everyday situations.

Concluding Statement

The designer is grateful that the instructional program met a learning need and resulted in young children displaying eagerness and excitement about reading instruction. The project took a considerable amount of time and effort to progress through the five instructional systems design phases. However, the program was not only interesting but enjoyable to the designer. Increasing self esteem and motivating young learners was the outcome of the reading corner activities.

The detailed instructional analysis is invaluable for continued professional growth. Completing this project has resulted in greater insights into the needs of the at-risk student. The designer found that one outcome of this project was the realization that special students required concrete, real life, experimental methods of learning. Arousing student interest also triggered motivation. It is the designer's hope that the reading readiness corner will be utilized in many classrooms. The pursuit of learning through visual and auditory modalities are easily adaptable to all teaching strategies.

APPENDIX A

QUESTIONNAIRE

QUESTIONNAIRE - READING READINESS

Questions to kindergarten teachers:

1. Can you identify specific areas of deficiencies in reading readiness exercises?
2. Will individualized instruction help?

Resource Room Teacher:

1. What type of needs are you addressing within the reading curriculum?
2. What is the success rate for increasing reading ability?
3. Do you see a need for individualized instruction?

Reading Specialist:

1. Are the scores reliable for first grade?
2. Would an individualized program help the target population in reading?

First Grade Teachers:

1. What specific problems have you encountered with decoding?
2. Does the reading program available to you address the special needs student?
3. Would individualized instruction be beneficial?

APPENDIX B

TASK ANALYSIS

INSTRUCTIONAL GOAL : Students will recognize and use letter/sound relationships of b,d,t and s in reading.

1.0 Define letter B

    1.1 Recognize letter B
    1.2 Distinguish letter B from other letters

2.0 Trace the letter B

    2.1 Trace upper case B
    2.2 Trace lower case B

3.0 Say sound of letter B

    3.1 Formulate sound "buh" which corresponds to "B"

4.0 Write words that begin with B sound

    4.1 List objects in classroom that begin with B
    4.2 List names that begin with B

5.0 Read story with B words

    5.1 Read words with initial b sound
    5.2 Read words with b sound located medially in words
    5.3 Read words with ending b sound

6.0 Use words with B sound in sentences

    6.1 List words with S sound
    6.2 Formulate sentences using B words

INSTRUCTIONAL GOAL : Students will recognize and use letter/sound relationships of b,d,t and s in reading.

1.0 Define letter D

    1.1 Recognize letter D
    1.2 Distinguish letter D from other letters

2.0 Trace the letter D

    2.1 Trace upper case D
    2.2 Trace lower case D

3.0 Say sound of letter D

    3.1 Formulate sound "de" which corresponds to "D"

4.0 Write words that begin with D sound

    4.1 List objects in classroom that begin with D
    4.2 List names that begin with D

5.0 Read story with D words

    5.1 Read words with initial d sound
    5.2 Read words with d sound located medially in words
    5.3 Read words with ending d sound

6.0 Use words with D sound in sentences

    6.1 List words with D sound
    6.2 Formulate sentences using D words

INSTRUCTIONAL GOAL : Students will recognize and use letter/sound relationships of b,d,t and s in reading.

1.0 Define letter T
    1.1 Recognize letter T
    1.2 Distinguish letter T from other letters

2.0 Trace the letter T
    2.1 Trace upper case T
    2.2 Trace lower case T

3.0 Say sound of letter T
    3.1 Formulate sound "te" which corresponds to "T"

4.0 Write words that begin with T sound
    4.1 List objects in classroom that begin with T
    4.2 List names that begin with T

5.0 Read story with T words
    5.1 Read words with initial t sound
    5.2 Read words with t sound located medially in words
    5.3 Read words with ending t sound

6.0 Use words with T sound in sentences
    6.1 List words with T sound
    6.2 Formulate sentences using T words

INSTRUCTIONAL GOAL : Students will recognize and use letter/sound relationships of b,d,t and s in reading.

1.0 Define letter S

    1.1 Recognize letter S
    1.2 Distinguish letter S from other letters

2.0 Trace the letter S

    2.1 Trace upper case S
    2.2 Trace lower case S

3.0 Say sound of letter S

    3.1 Formulate sound "ess" which corresponds to "S"

4.0 Write words that begin with S sound

    4.1 List objects in classroom that begin with S
    4.2 List names that begin with S

5.0 Read story with S words

    5.1 Read words with initial s sound
    5.2 Read words with s sound located medially in words
    5.3 Read words with ending s sound

6.0 Use words with S sound in sentences

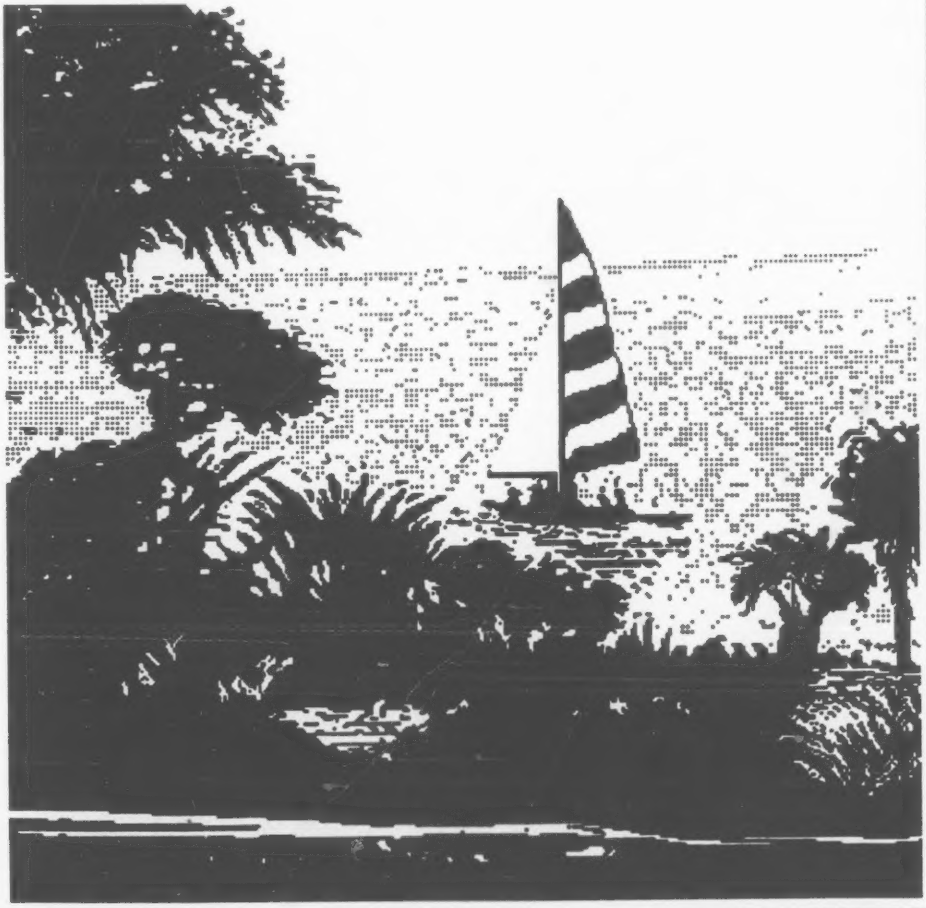
    6.1 List words with S sound
    6.2 Formulate sentences using S words

APPENDIX C

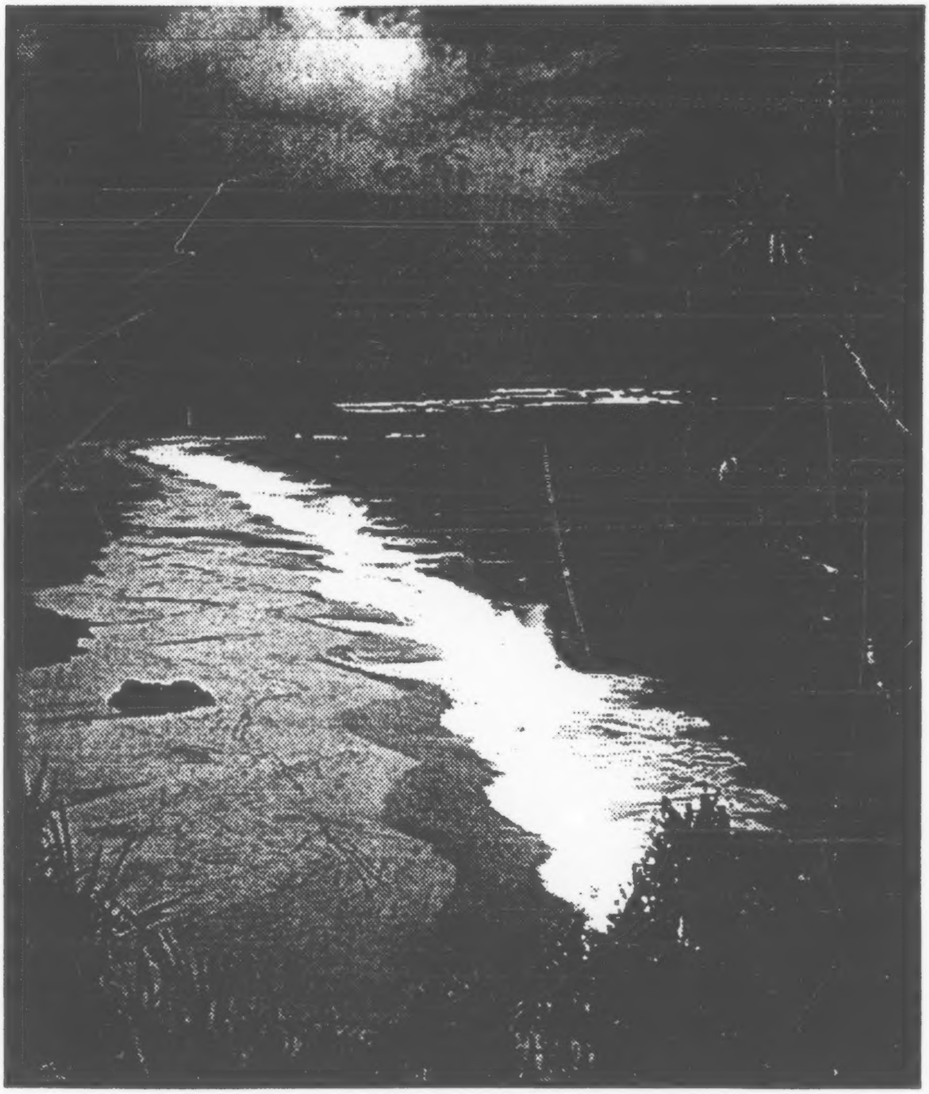
OVERHEAD TRANSPARENCIES

TRANSPARENCY

WORDS THAT BEGIN WITH THE LETTER B

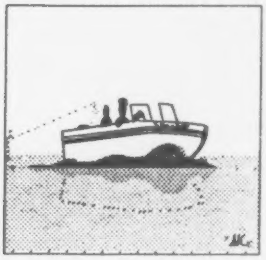


beach

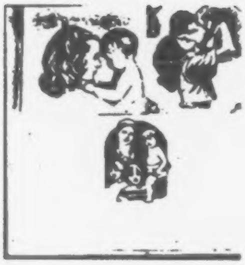


WORDS THAT BEGIN WITH THE B SOUND

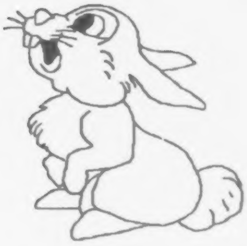
boat



baby



bunny



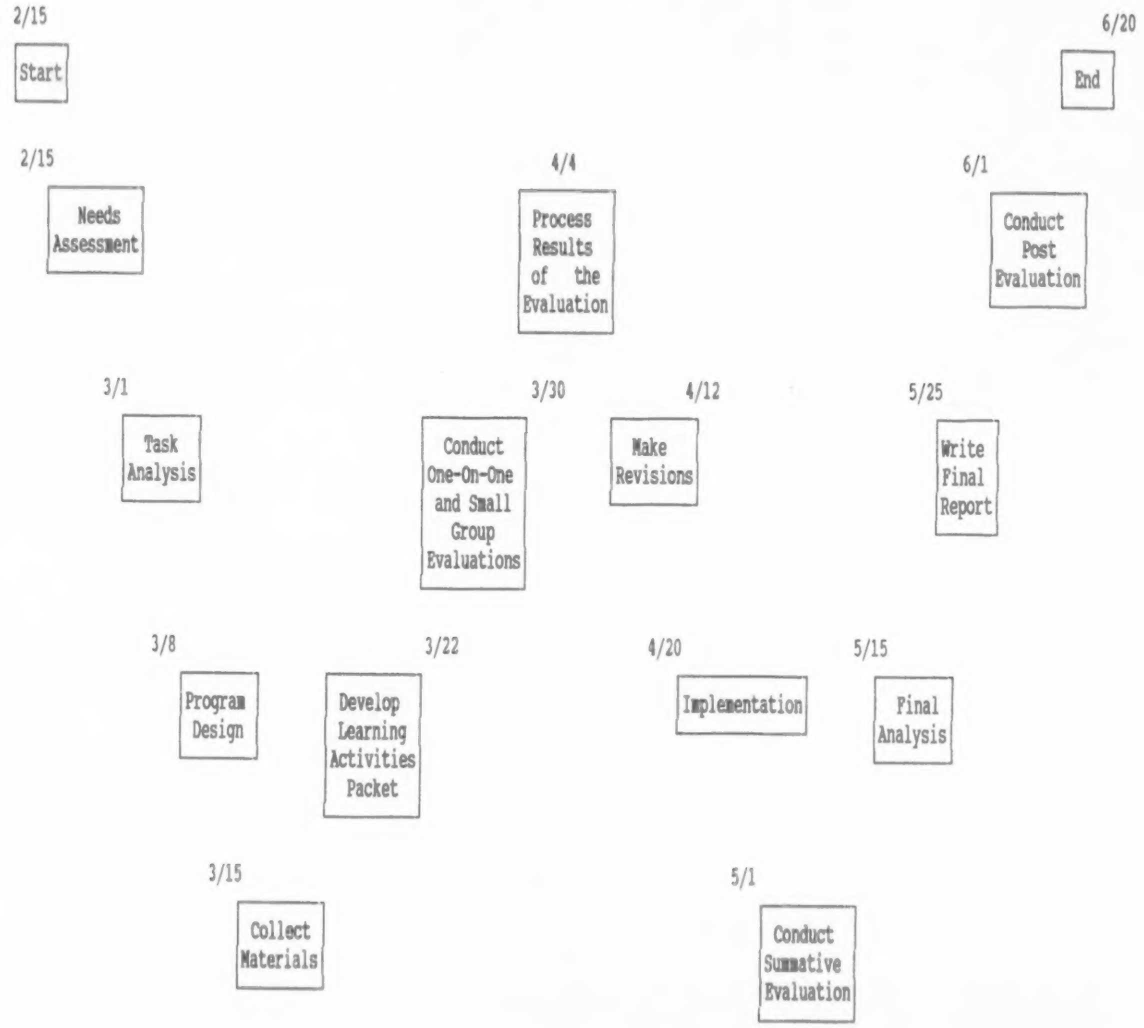
by Jan Davis

APPENDIX D

PERT AND GANTT CHARTS

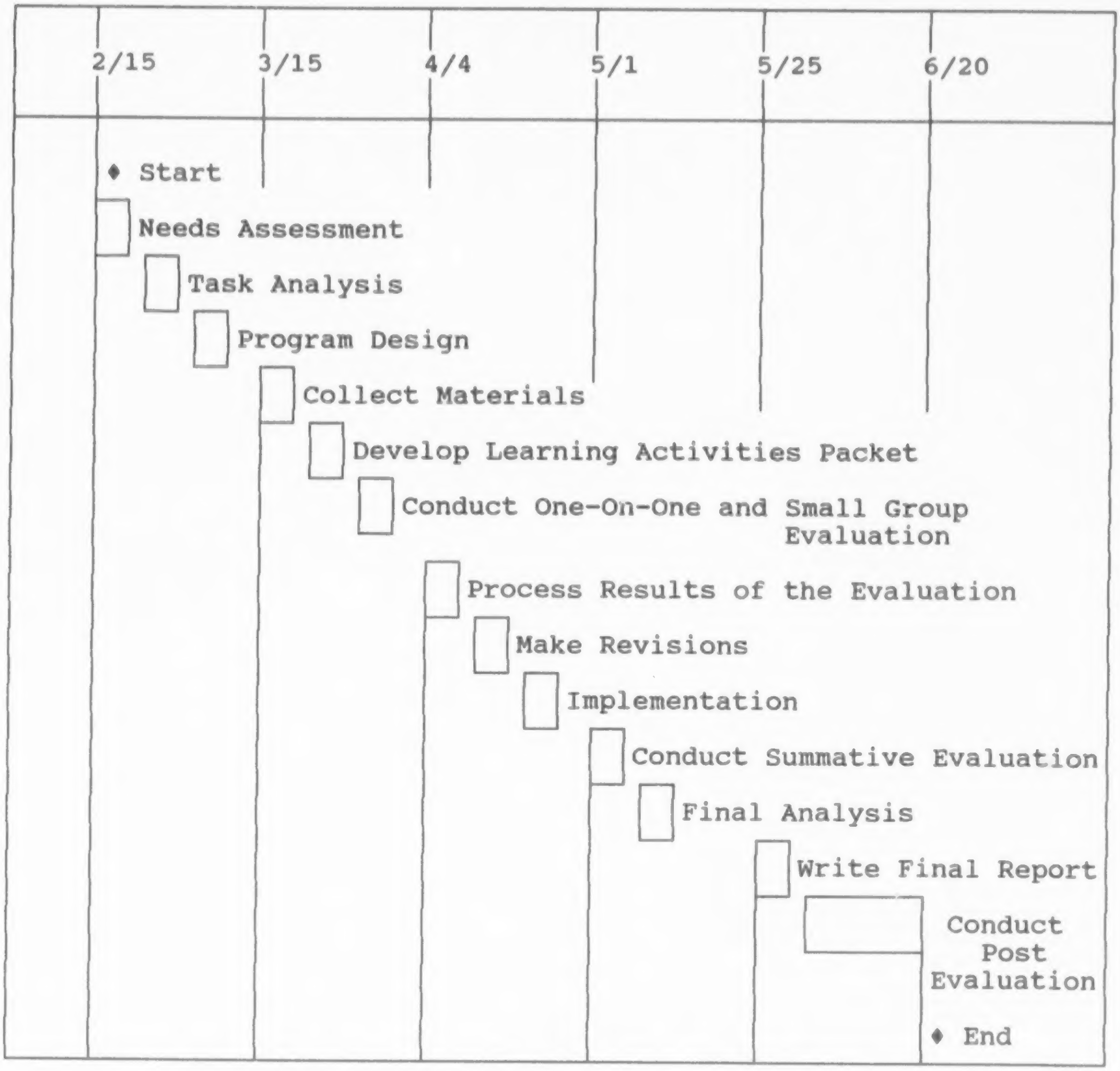
Decoding Consonants B, D, T, and S

Development Plan


2/15
Start
6/20
End
2/15
Needs Assessment
4/4
Process Results of the Evaluation
6/1
Conduct Post Evaluation
3/1
Task Analysis
3/30
Conduct One-On-One and Small Group Evaluations
4/12
Make Revisions
5/25
Write Final Report
3/8
Program Design
3/22
Develop Learning Activities Packet
4/20
Implementation
5/15
Final Analysis
3/15
Collect Materials
5/1
Conduct Summative Evaluation

Decoding Consonants B, D, T and S

Development Plan



APPENDIX E

INSTRUCTIONAL TASKS

Objective # 1.1 Select letters b,d,t and s.

INFORMATION PRESENTATION

INFORMATION:
The letter b is displayed on a flash card with a word to associate it with its' sound.
The letter d is displayed on a flash card with a word to associate it with its' sound.
The letter t is displayed on a flash card with a word to associate it with its' sound.
The letter s is displayed on a flash card with a word to associate it with its' sound.

EXAMPLES:

Letter b looks like this: b
The word boy begins with the letter b.
Letter d looks like this: d
The word doll begins with the letter d.
The letter t looks like this: t
The word toy begins with the letter t.
The letter s looks like this: s
The word sit begins with the letter s.

STUDENT PARTICIPATION:

PRACTICE ITEMS:

Select the letter b from other flash cards.
What word can you think of that starts with the b sound?
Can you make the sound that b makes?

FEEDBACK:
State that the letter b looks like b from flash cards.
State that the letter d looks like d from flash cards.
State that the letter t looks like t from flash cards.
State that the letter s looks like s from flash cards.

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lower case b.
Draw a straight line with one large half circle facing right to make upper case D. Draw a straight line with a small circle on bottow facing right to make a lower case d.
Draw a straight line and cross it on top to make an upper case T. Draw a straight line and cross it three quarters of the way through the straight line to make a lower case t.

STUDENT PARTICIPATION

PRACTICE ITEMS:
Trace an upper case B to look like this: B
Trace a lower case b to look like this: b.
Trace an upper case D to look like this: D
Trace a lower case d to look like this: d
Trace an upper case T to look like this: T
Trace a lower case t to look like this: t
Trace an upper case S to look like this: S
Trace a lower case s to look like this: s

FEEDBACK:
State the difference between an upper case and a lower case B.
State the difference between an upper case and a lower case D.
State the difference between an upper case and a lower case T.
State the difference between an upper case and a lower case S.

OBJECTIVE # 3.1 Formulate sounds which correspond with b (buh), d (de), t (te) and s (ess).

INFORMATION PRESENTATION

INFORMATION
The letter b makes the (buh) sound.
The letter d makes the (de) sound.
The letter t makes the (te) sound.
The letter s makes the (ess) sound.

EXAMPLES
When you hear the (buh) sound in the following words, hold up your b flash card. (baby, doll, boy, ball, go)
When you hear the (de) sound in the following words, hold up your d flash card. (dog, dance, call, doll)
When you hear the (te) sound in the following words, hold up your t flash card. (tall, ten, men, touch)
When you hear the (ess) sound in the following words, hold up your s flash card. (silly, cat, sat, car)

STUDENT PARTICIPATION

Objective # 1.2 Distinguish letters b,d,t and s from other letters

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INFORMATION PRESENTATION

INFORMATION:
Letters b, d,t and s are distinguished from other letters in the alphabet. Letters b,d,t and s are orally stated.

EXAMPLES:
The words boy, ball, and big begin with the letter b.
The words day, dig and den begin with the letter d.
The words tall, ten and toy begin with the letter t.
The words sit, say and sing begin with the letter s.

STUDENT PARTICIPATION

PRACTICE ITEMS:

Circle the words that begin with b (bed, dog, big, ball, cat, egg.)
Circle the words that begin with d (boy, desk, door, bell, call.)
Circle the words that begin with t (bed, tall, toy, ten, moon.)
Circle the words that begin with s (dress, soap, sun, mess, sit.)

FEEDBACK:

State orally and circle words which begin with the letter b.
State orally and circle words which begin with the letter d.
State orally and circle words which begin with the letter t.
State orally and circle words which begin with the letter s.

OBJECTIVE # 2.1 Trace upper case B,D,T and S.
OBJECTIVE # 2.2 Trace lower case b,d,t and s.

INFORMATION PRESENTATION

INFORMATION:
Upper case B should look like this: B
Lower case b should look like this: b
Upper case D should look like this: D
Lower case d should look like this: d
Upper case T should look like this: T
Lower case t should look like this: t
Upper case S should look like this: S
lower case s should look like this: s

EXAMPLES:
Write a straight line with two circles facing right to make upper case B. Draw a straight line with one circle on bottom facing right to make

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PRACTICE ITEMS:
What does the letter b sound like?
Can you hear the (buh) sound in these words: boy, big, ball.
What does the letter d sound like?
Can your hear the (de) sound in these words: dig, dog, day.
What does the letter t sound like?
Can you hear the (te) sound in these words: toy, tall, ten.
What does the letter s sound like?
Can you hear the (ess) sound in these words: silly, say, send.

FEEDBACK:
State that the letter b sounds like (buh).
State that the letter d sounds like (de)
State that the letter t sounds like (te).
State that the letter s sounds like (ess).

OBJECTIVE # 4.1 List objects in the classroom that begin with the letters b,d,t and s.
OBJECTIVE # 4.2 List names that begin with the letters b,d,t and s

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INFORMATION PRESENTATION

INFORMATION:

Objects and names that begin with the (buh) sound can be found in the classroom.

Objects and names that begin with the (de) sound can be found in the classroom.

Objects and names that begin with the (te) sound can be found in the classroom.

Objects and names that begin with the (ess) sound can be found in the classroom.

EXAMPLES:
A blackboard is in our classroom. It starts with the (buh) sound.
A desk is in our classroom. It starts with the (de) sound.
A table is in our classroom. It starts with the (te) sound.
Sara is a name that begins with the (ess) sound.

STUDENT PARTICIPATION

PRACTICE ITEMS
Write two words that begin with the (buh) sound.
Write two names that begin with the (de) sound.
Write two objects that begin with the (te) sound.
Write two objects that begin with the (ess) sound.

FEEDBACK
State objects in the classroom which begin with the (buh), (de), (te) and (ess) sounds. State names that begin with the same sounds.

OBJECTIVE # 5.2 Read words with initial b,d,t and s sound.
OBJECTIVE # 6.1 List words with b,d,t and s sound.

INFORMATION PRESENTATION

INFORMATION
Words that have the initial (buh) sound. (boy, ball, big)
Words that have the initial (de) sound. (dog, dig, den)
Words that have the initial (te) sound. (toy, tell, tall)
Words that have the initial (ess) sound. (sing, see, sell)

EXAMPLES
Pictures of words with initial b sound. Ball
Pictures of words with initial d sound. Desk
Pictures of words with initial t sound. Ten
Pictures of words with initial s sound. Sky

STUDENT PARTICIPATION

PRACTICE ITEMS
Display pictures of boy, ball, doll.
Print the letter b in front of each picture whose name begins with the (buh) sound.
Repeat for letters d,t and s.

FEEDBACK
State words that have initial b,d,t and s sounds. Choose words from a short story that begin with the b,d,t and s sounds. State words orally.

OBJECTIVE # 5.2Read words with the b,d,t and s sound located medially.
OBJECTIVE # 5.3 Read words with ending b,d,t and s sounds.

INFORMATION PRESENTATION

INFORMATION
Words that have the (Buh) sound located medially and in ending position. (baby) (cob).
Words that have the (de) sound located medially and in ending position. (daddy) (dad)
Words that have the (te) sound located medially and in ending position. (enter) (cot)
Words that have the (ess) sound located medially and in ending position. (essay) (bass)

EXAMPLES
B- baby, bubble. Cob, lab.
D- daddy, fiddle. Dad, lad.
T- enter, fatter. Bat, cat.
S- essay, assist. Bass, mess.

STUDENT PARTICIPATION

PRACTICE ITEMS:
Fill in the circle under each word that has the (buh), (de), (te) and (ess) sound in the middle of the word.

B words: baby, dog, bubble, dig.
D words: dig, daddy, big, fiddle.
T words: enter, fast, fatter, ball.
S words: assist, walk, essay, lock.

Underline each word that ends in b,d,t and s:

B: ball, bib, cat, cob.
D: did, doll, dad, call.
T: tot, tall, cot, cat.
S: class, say, lass, fast.

FEEDBACK
State orally words that have the b,d,t and s sounds located medially. State orally words that have the b,d,t and s sounds in ending position.

OBJECTIVE # 6.2 Formulate sentences using b,d,t and s words

INFORMATION PRESENTATION

INFORMATION
Written sentences containing words that begin with the letters b,d,t and s will be completed by students. Students will use familiar words learned during instruction.

EXAMPLES
The boy has a dog.
A silly boy ran two blocks.
I can see the doll.
Ten boys can sit on the bench.

STUDENT PARTICIPATION

PRACTICE ITEMS
Given the title"If I had three wishes, I would wish for..." write five sentences that contain the letters b,d,t and s.

FEEDBACK
State orally each sentence that was written. Each sentence will contain words that begin with the letters b,d,t and s.

APPENDIX F

INSTRUCTIONAL OBJECTIVES

Subskill Statement from Instructional Analysis	Matching Performance Objective
1.1 Recognize letters b, d, t, and s.	1.1 Given pictures of flash cards of the letters b, d,t, and s, the student will identify letters b, d, t, and s. The recognition of letters b, d, t, and s must be orally stated upon visualization of letters.
1.2 Distinguish letters b, d, t, and s from other letters.	1.2 Given the letters b, d, t, and s along with other letters, the student will distinguish the letters b, d, t, and s from other letters. The discrimination of letters b, d, t, and s must be orally stated.
2.1 Trace upper case B, D, T, and S.	2.1 Given tracing paper and a diagram of an upper case B, D, T, and S, the student will trace an upper case B, D, T, and S. The tracing of the upper case B, D, T, and S must match the diagram of the upper case B, D, T, and S.
2.2 Trace lower case b, d, t, and s.	2.2 Given tracing paper and a diagram of a lower case b, d, t, and s, the student will trace a lower case b, d, t, and s. The tracing of the lower case b, d, t, and s must match the diagram of the lower case b, d, t, and s.
3.1 Formulate sounds which correspond with b (buh), d (de), t (te), and s (ess).	3.1 Given the sounds of the letters letters b, d, t, and s the student will formulate the sound which corresponds to b (buh), d (de), t (te), and s(ess). The formulation of sounds must be clear and audible. The b must sound like "buh", the d must sound like "de", the t must sound like "te", and the s must sound like "ess".

4.1	List objects in the classroom that begin with b, d, t, and s	4.1	Given objects in a classroom, the students will list objects that begin with b, d, t, and s. The listing of objects must be written by the student. Each object must be named.
4.2	List names that begin with the letters b, d, t, and s	4.2	Given the letters b, d, t, and s the students will list names that begin with the letters b, d, t, and s. The listing of names must be written by the students.
5.1	Read words with initial b, d, t, and s sound	5.1	Given words that contain b, d, t, and s in beginning position, the student will read words with initial b, d, t, and s sound. The words must be sounded out phonetically.
5.2	Read words with the b, d,t, and s sound located medially in words	5.2	Given words that contain b, d, t, and s in medial position, the student will read words with the b, d, t, and s sound located medially in words. The words must be sounded out phonetically.
5.3	Read words with ending b, d, t, and s sound	5.3	Given words that contain b, d, t, and s in ending position, the student will read words with ending b, d, t, and s sound. The words must be sounded out phonetically.
6.1	List words with b, d, t, and s sound	6.1	Given the letters b, d, t, and s and s the student will list words with b, d, t, and s sound. The list of words must all begin with the b, d, t, and s sound. The list must be written.
6.2	Formulate sentences using b, d, t, and s words	6.2	Given words that begin with the letters b, d, t, and s the student will formulate sentences using b, d, t, and s words. The sentences must all contain words that begin with the b, d, t, and s sound. The sentences must be read orally and written by the student.

Test Items

1.1.1 Identification of letters b, d, t, and s (checklist)

1.1.2 Student recognizes letter b yes no

1.1.3 Student recognizes letter d yes no

1.1.4 Student recognizes letter t yes no

1.1.5 Student recognizes letter s yes no

1.2.1 Circle the words that begin with b (bed, dog, big, ball, cat, egg.)

1.2.2 Circle the words that begin with d (boy, desk, door, bell, call, dig.)

1.2.3 Circle the words that begin with t (bed, tall, toy, ten, moon, tent.)

1.2.4 Circle the words that begin with s (dress, soap, sun, mess, sit, sick.)

2.1.1 Dictation- Students will write upper case B, d, t, and S as the letters are dictated to them.

2.2.1 Dictation- Students will write lower case b, d, t, and s as the letters are dictated to them.

3.1.1 Students are given flash cards with letter B. Each time you hear a word that begins with the "buh" sound, hold up you letter B (flash card).

3.1.2 Repeat for letters d, t, and s.

4.1.1 Write five words that begin with the letter b that can be found in your classroom.

4.1.2 Repeat for letters d, t, and s.

4.2.1 Write five names that begin with the letter b.

4.2.2 Repeat for letters d, t, and s.

5.1.1 Display pictures of: doll, duck, cloud, door, deer, and desk. Students are to print d in front of each picture whose name begins with d.

5.1.2 Repeat for letters b, t, and s.

5.2.1 Name the pictures in each row. Fill in the circle under each picture where you hear the "buh" sound.

baby	dog	bubble
○	○	○

5.2.2 Repeat for letters d, t, and s.

5.3.1 Display pictures of: sled, hand, cloud, door, dog. Print letter d after each picture whose name ends in d.

5.3.2 Repeat for letters b, t, and s.

6.1.1 Give students a short story to read. List all words that begin with the letter b from the story.

6.1.2 Repeat for letters d, t, and s.

6.2.1 Given the title: "If I had three wishes, I would wish for ....." Write five sentences including words beginning with the letter b.

6.2.2 Repeat for letters d, t, and s.

APPENDIX G

INTERVIEW RESULTS

INTERVIEW RESULTS

Second Grade Teacher: (Mrs. M. Leonard) She finds that many children have difficulty decoding words. The b and the d sounds, initially and in ending position, create the most difficulty for children. This problem is carried over into second grade, when it should be corrected in the later part of first grade.

Reading Consultant: (Ms. D. Dugan) Sees a definite need for individualized instruction as early as kindergarten as well as first grade. Reading readiness programs can be improved in kindergarten and reinforced in first grade. Remedial reading, for children not achieving grade level, begins in second grade (mid-year). Possibly, a remedial program starting in the later part of first grade would help these children have a better start in grade two. A summer study program designed for at home use before second grade to reinforce learning.

First Grade Teacher: (Ms. C. Gillies)) Consonant letters such as d and t, give children difficulty as well as vowel sounds (initially and medially). This reading group requires a lot of time and resources. Basal reading programs give suggestions for remedial help, yet no printed materials are available. This teacher makes up her own cards and audio tapes to correlate with basal reader stories.

APPENDIX H

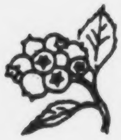
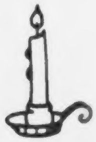
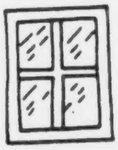
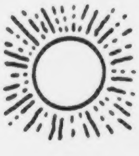
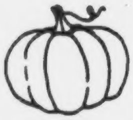
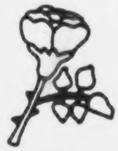
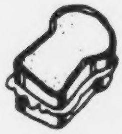
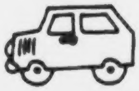
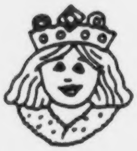
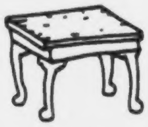
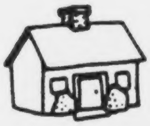
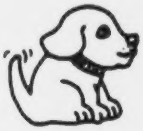
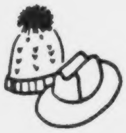
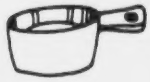
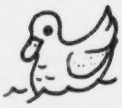
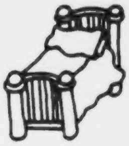
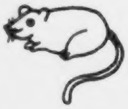
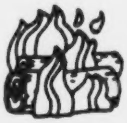
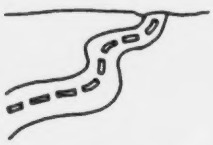
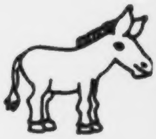
PRETEST

Locator Sheet

Reading Express. MacMillan Publishing Co. Teacher's Manual, Level L. (1987) pp. TM-2 - TM-6, 4-6.

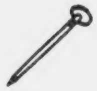
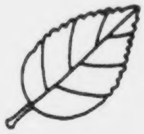
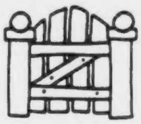
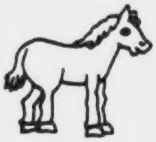
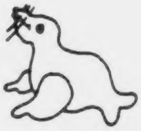
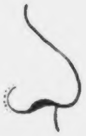
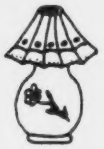
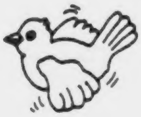
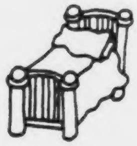
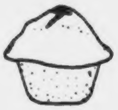
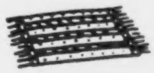
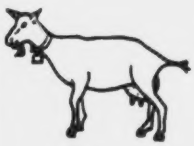
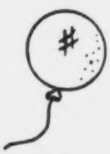
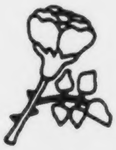
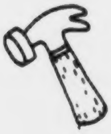
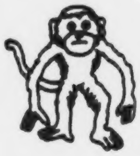
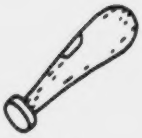
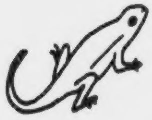
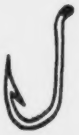
Name________________________ Date_____103_____

A

5.	w	 ⓐ	 ⓑ	 ⓒ	 ⓓ
6.	p	 ⓐ	 ⓑ	 ⓒ	 ⓓ
7.	qu	 ⓐ	 ⓑ	 ⓒ	 ⓓ
8.	d	 ⓐ	 ⓑ	 ⓒ	 ⓓ
9.	f	 ⓐ	 ⓑ	 ⓒ	 ⓓ

PRE-Test : Beginning Consonants
20 Items

Name________________________ Date______________

10.	g	 ⓐ	 ⓑ	 ⓒ	 ⓓ
11.	s	 ⓐ	 ⓑ	 ⓒ	 ⓓ
12.	b	 ⓐ	 ⓑ	 ⓒ	7 ⓓ
13.	h	 ⓐ	 ⓑ	 ⓒ	 ⓓ
14.	l	 ⓐ	 ⓑ	 ⓒ	 ⓓ

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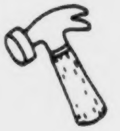
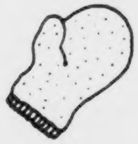
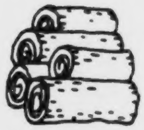
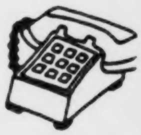
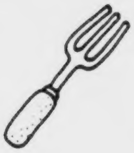
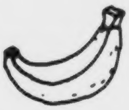
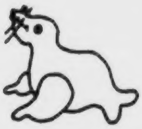
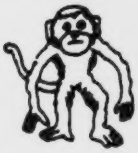
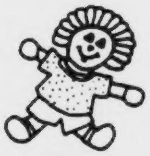
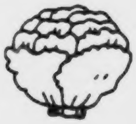
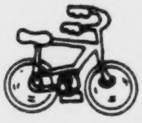
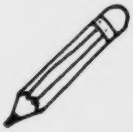
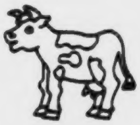
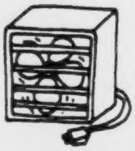
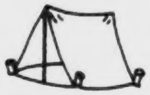
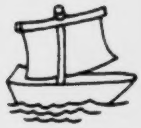
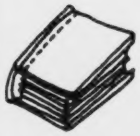
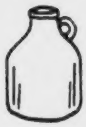
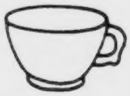
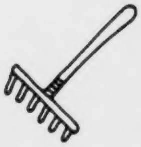
10.	w	 ⓐ	 ⓑ	 ⓒ	 ⓓ
11.	f	 ⓐ	 ⓑ	 ⓒ	 ⓓ
12.	d	 ⓐ	 ⓑ	 ⓒ	 ⓓ
13.	t	 ⓐ	 ⓑ	 ⓒ	 ⓓ
14.	j	 ⓐ	 ⓑ	 ⓒ	 ⓓ

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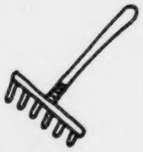
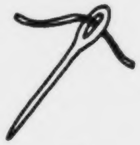
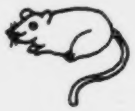
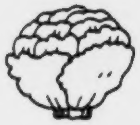
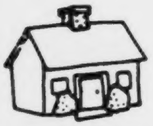
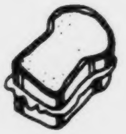
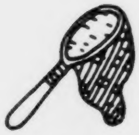
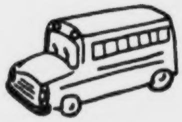
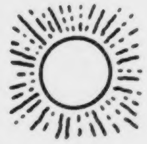
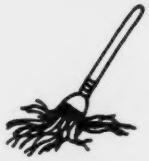
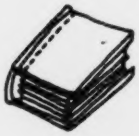
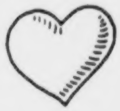
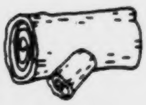
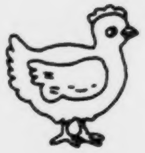
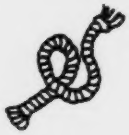
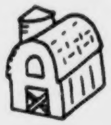
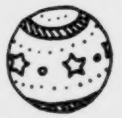
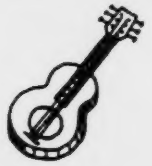
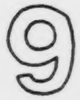
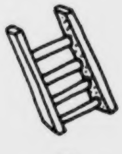
5. l	 ⓐ	 ⓑ	 ⓒ	 ⓓ
6. n	 ⓐ	 ⓑ	 ⓒ	 ⓓ
7. s	 ⓐ	 ⓑ	 ⓒ	 ⓓ
8. h	 ⓐ	 ⓑ	 ⓒ	 ⓓ
9. n	 ⓐ	 ⓑ	 ⓒ	 ⓓ

APPENDIX I

POST TEST

POST TEST

1. Circle the words that begin with B

   bed dog big ball cat egg

2. Circle the words that begin with D

   boy desk door bell call

3. Write four words that begin with the s sound.

4. Write four words that begin with the t sound.

5. Display picture of desk -- does this picture begin with the letter : B S T D

6. Display picture of a ball- does the picture begin with the letter : C F G B

7. Complete each sentence:

   1. The _______ flew in the sky.

      (a) doll (b) girl (c) dog (d) bird

   2. I can run and _______.

      (a) ball (b) play (c) egg (d) candy

   3. The _______ has a tail.

      (a) girl (b) doll (c) dog (d) get

8. Write five sentences on this topic:

   "If I had three wishes, I would wish for......."

Sample questions listed above for letter-sound recognition, beginning consonant sounds, and completion of sentences.

Creative writing exercise (8).

APPENDIX J

PERFORMANCE CHECKLISTS

TABLE #1

✓ achieved
× not achieved

BEFORE INSTRUCTION

Name	Able to follow simple directions	Worked Independently	Recognized upper case letters	Recognized lower case letters	Followed sequence of activities	Matched words with pictures beginning with same sound	TOT
Student #1	✓	×	×	×	×	×	1
2	✓	✓	×	×	✓	×	3
3	×	×	×	×	×	×	0
4	×	✓	×	✓	✓	×	3
5	✓	✓	✓	✓	×	×	4
6	✓	✓	✓	✓	×	✓	5
7	✓	×	×	×	×	×	1
8	×	×	×	×	×	×	0
9	✓	×	✓	✓	✓	✓	5
10	✓	✓	✓	✓	✓	✓	6
11	✓	×	✓	✓	×	✓	4
12	×	×	×	×	×	×	0
13	✓	✓	✓	✓	✓	✓	6
14	×	×	×	×	×	×	0
15	✓	✓	✓	✓	✓	✓	6
16	✓	×	×	×	✓	✓	3
17	×	×	×	×	×	×	0
18	✓	✓	✓	✓	×	×	4
19	×	×	✓	✓	✓	✓	4
20	×	✓	×	×	×	×	1

TABLE #2

✓ achieved
X not achieved

After Instruction

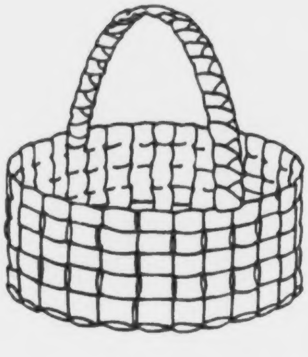
Name	Able to Follow simple directions	WORKED Independently	Recognized Upper case letters	Recognized lower case letters	Followed sequence of activities	Matched words with pictures the beginning with same sound	TOT
Student #1	✓	✓	✓	✓	✓	X	5
2	✓	✓	✓	✓	✓	✓	6
3	X	X	✓	✓	✓	X	3
4	✓	✓	✓	✓	✓	✓	6
5	✓	✓	✓	✓	✓	✓	6
6	✓	✓	✓	✓	✓	✓	6
7	✓	X	✓	✓	X	✓	4
8	✓	X	✓	✓	X	X	3
9	✓	✓	✓	✓	✓	✓	6
10	✓	✓	✓	✓	✓	✓	6
11	✓	X	✓	✓	✓	✓	5
12	X	X	✓	✓	X	X	2
13	✓	✓	✓	✓	✓	✓	6
14	✓	X	✓	✓	✓	X	4
15	✓	✓	✓	✓	✓	✓	6
16	✓	X	✓	✓	✓	✓	5
17	✓	X	✓	✓	X	X	3
18	✓	✓	✓	✓	✓	✓	6
19	✓	✓	✓	✓	✓	✓	6
20	✓	✓	✓	✓	X	X	4

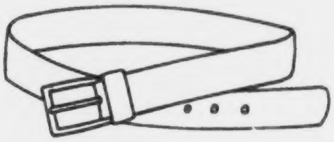
APPENDIX K

MATERIALS DEVELOPED FOR THIS PROJECT

LOCATOR SHEET

Foundation, The Headway Program. Teacher's Manual, Level B. (1985). pp. 10, 13, 14, 28-32, 61-63, 77, 80.





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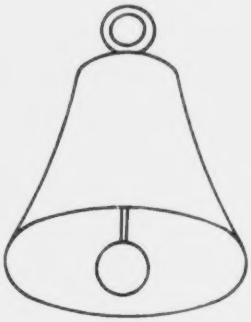

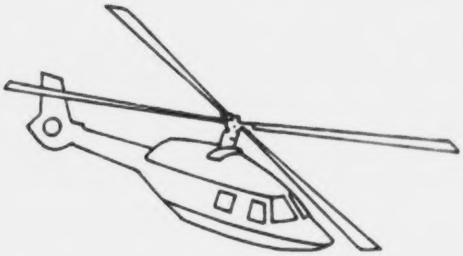

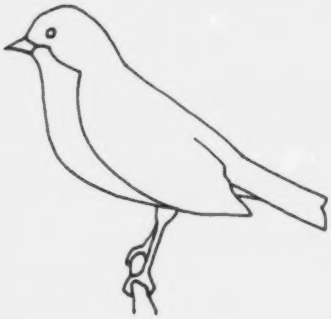

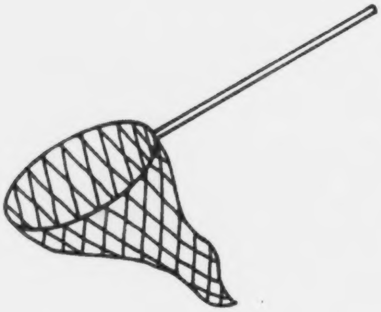

Can you choose the pictures
that begin with the letter B.

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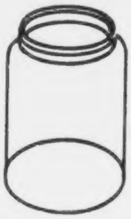

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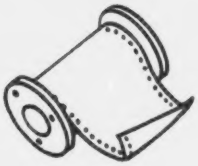

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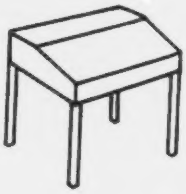

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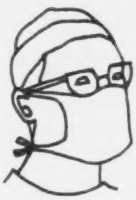

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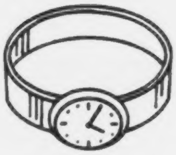

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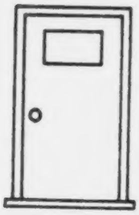

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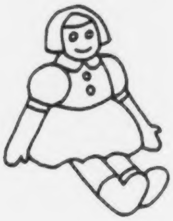

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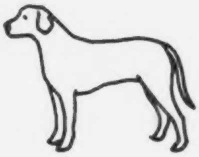

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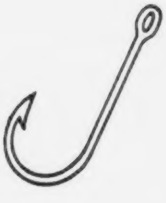

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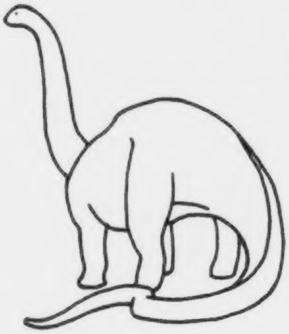

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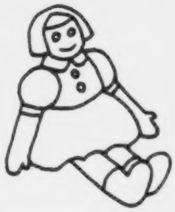

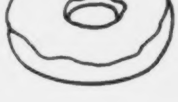

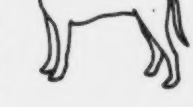

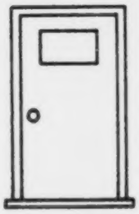

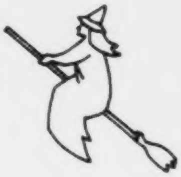

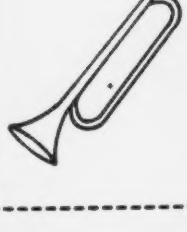

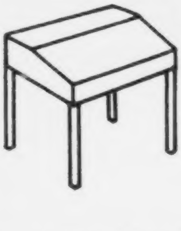

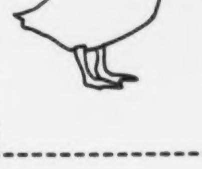

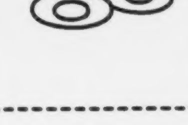

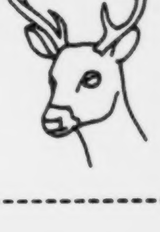

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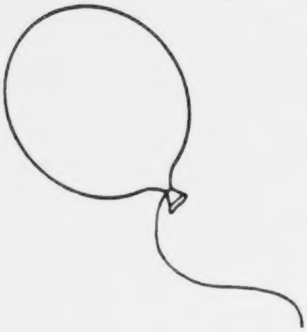
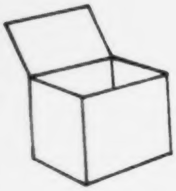
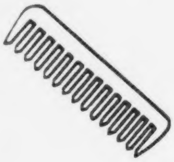
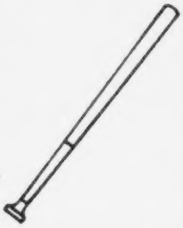
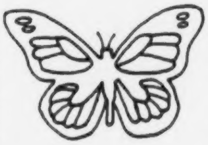
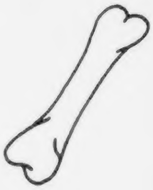


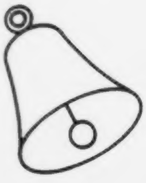


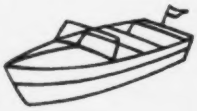


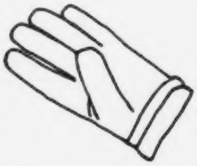


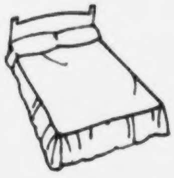


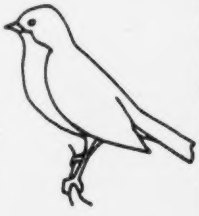




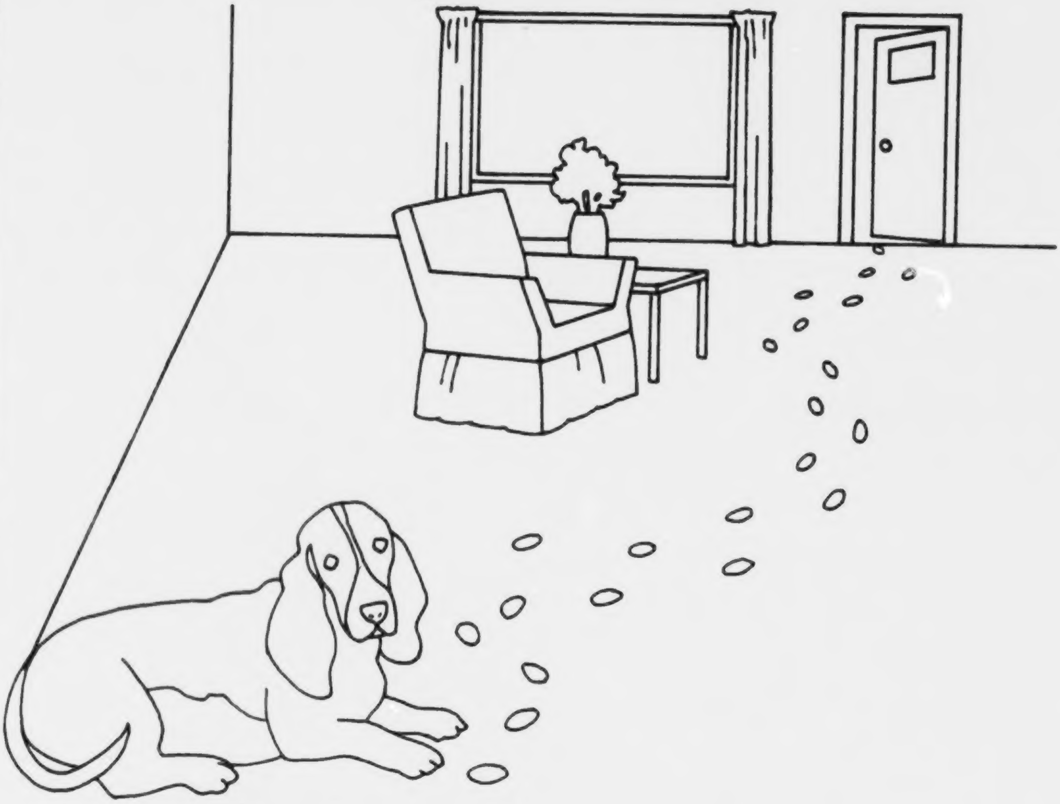








Take the dog to the door. 118



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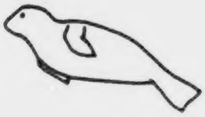

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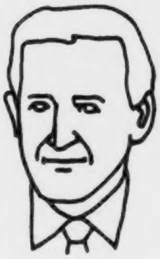

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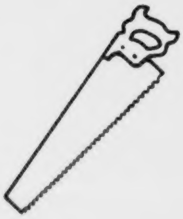

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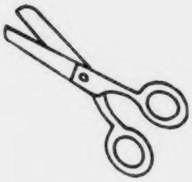

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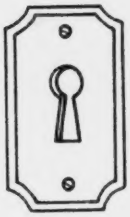

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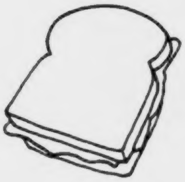

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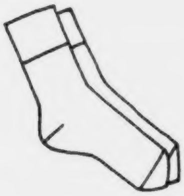

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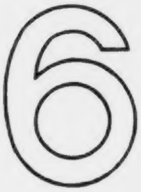

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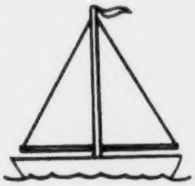

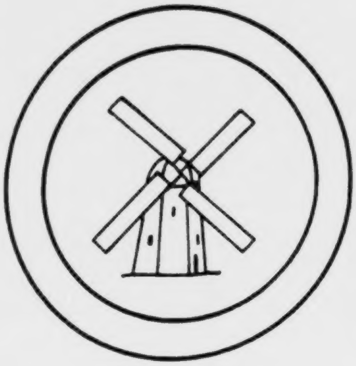

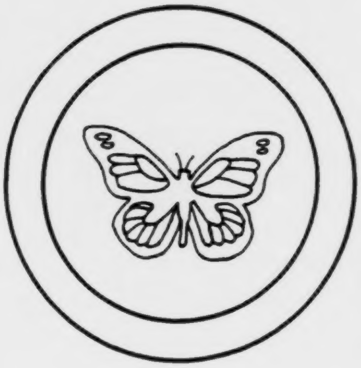

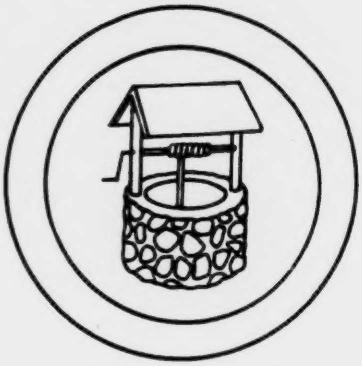

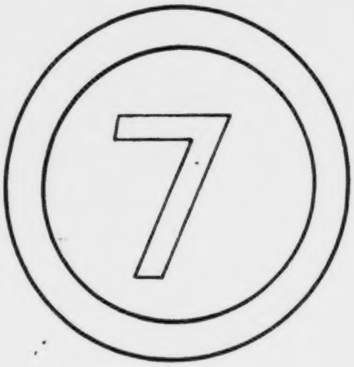

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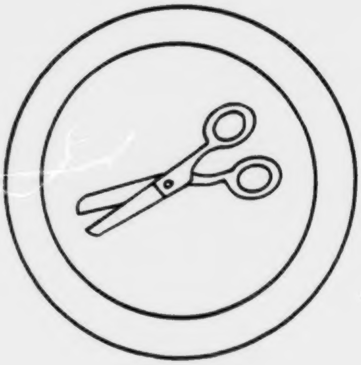

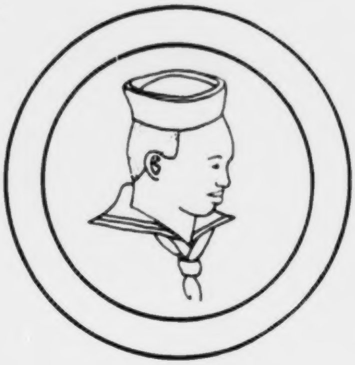

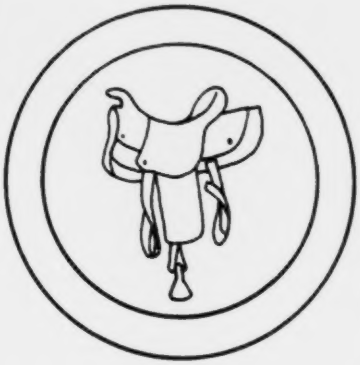

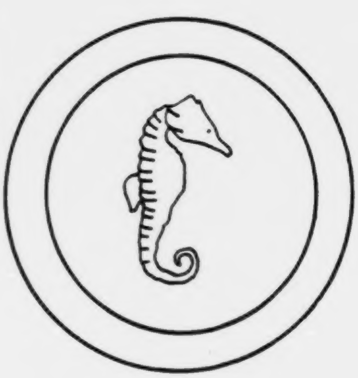

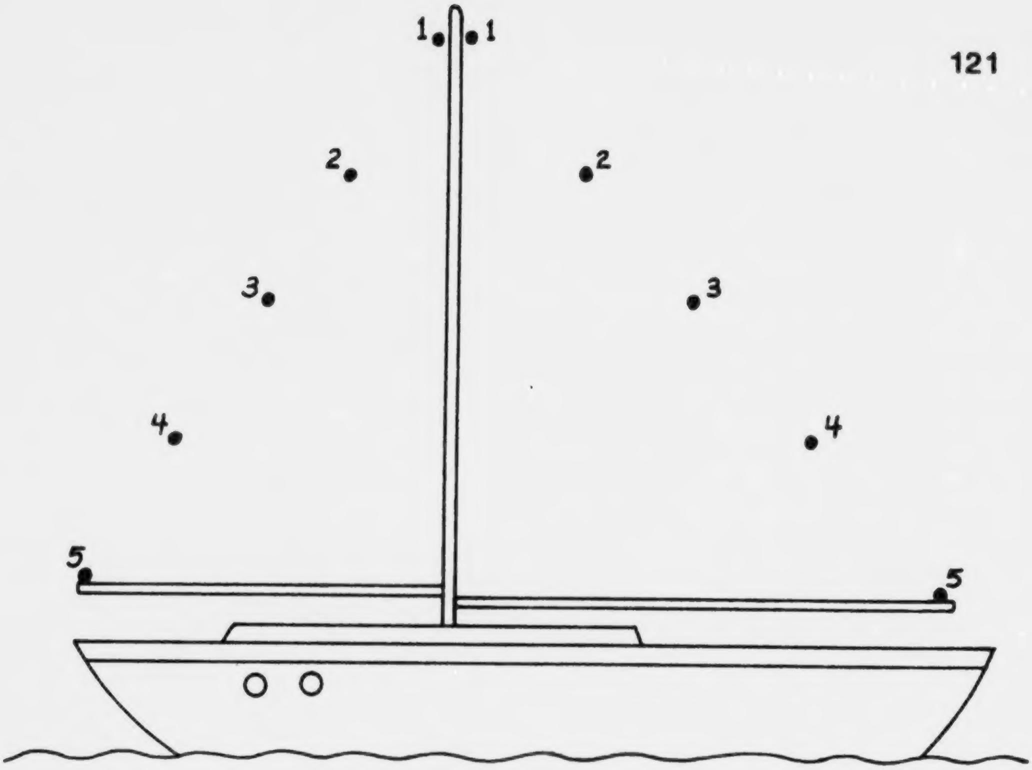
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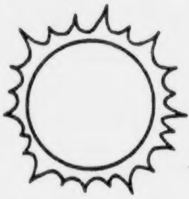	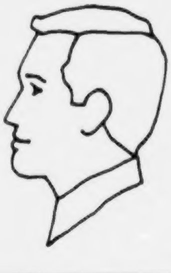	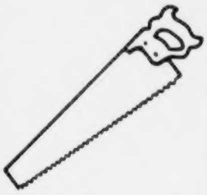	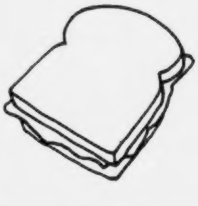	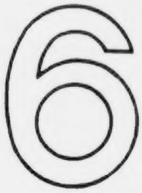
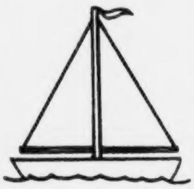	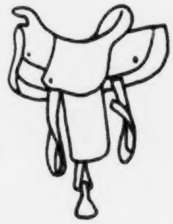	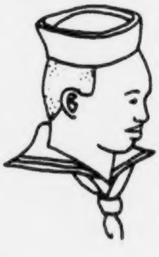	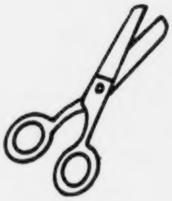	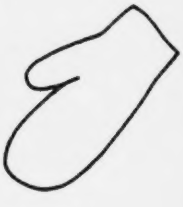

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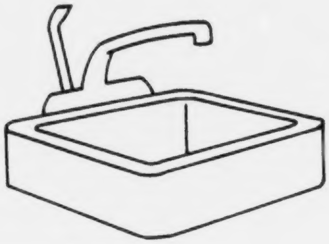

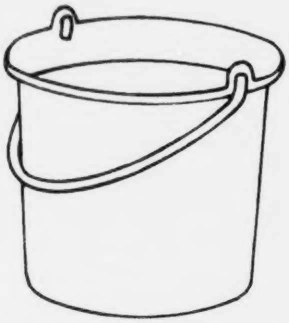

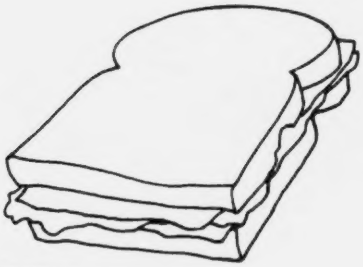

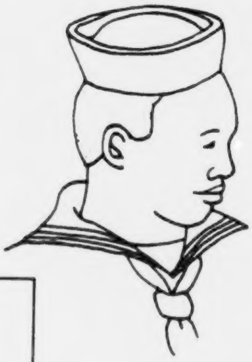

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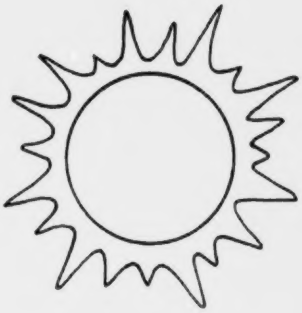

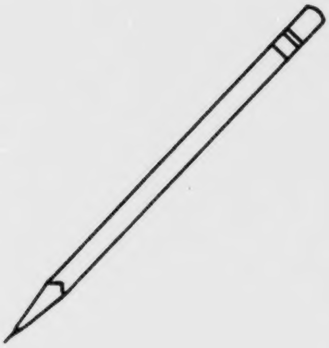

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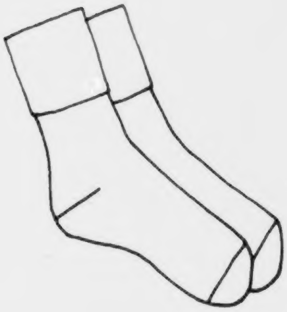

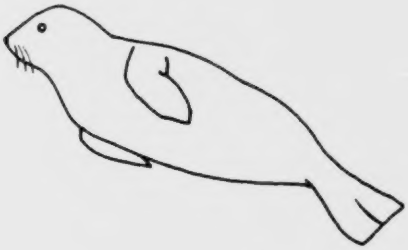

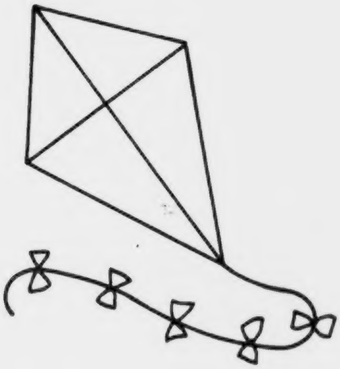

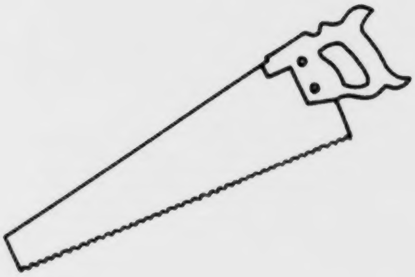

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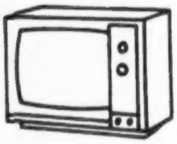

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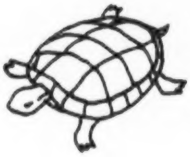

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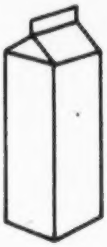

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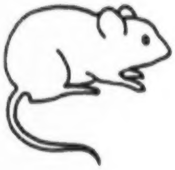

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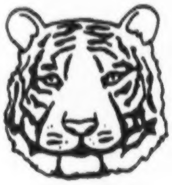

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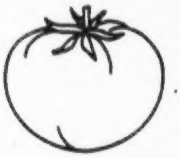

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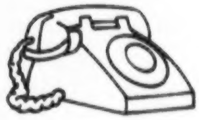

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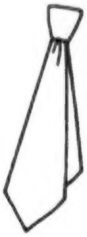

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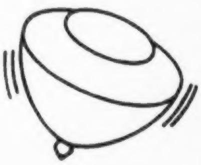

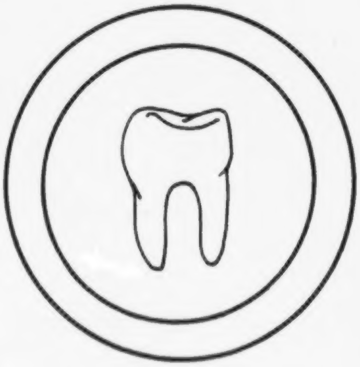

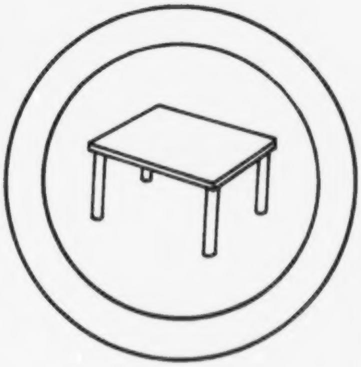

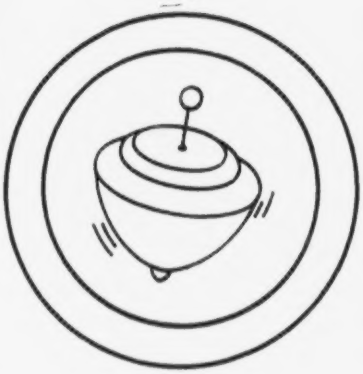

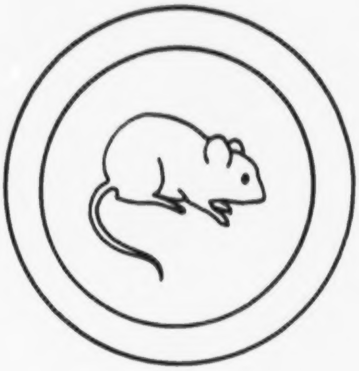

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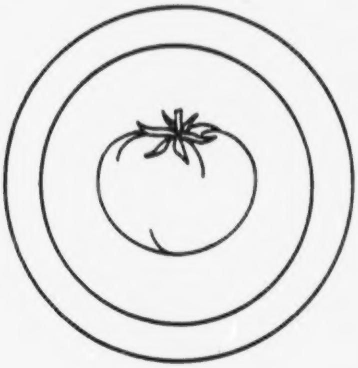

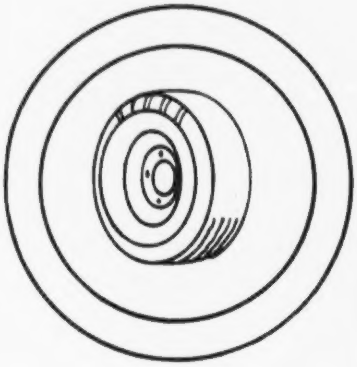

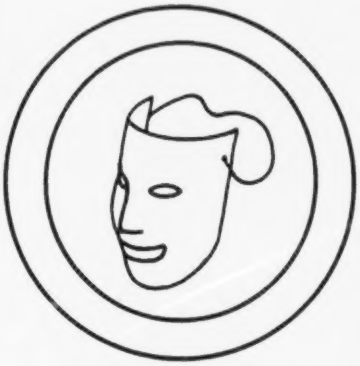

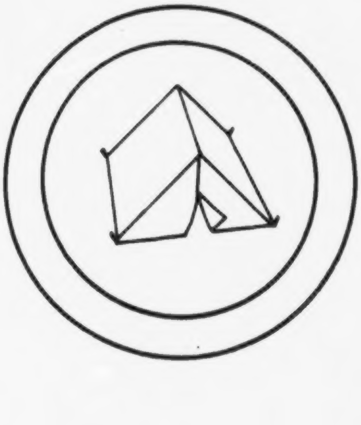

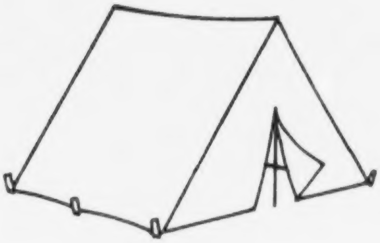

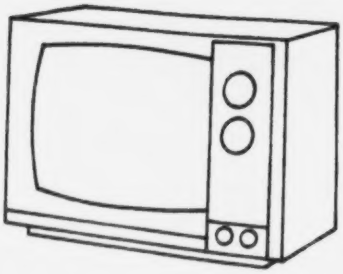

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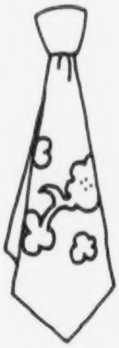
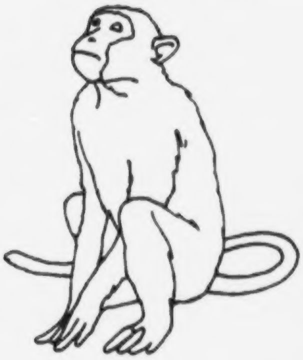
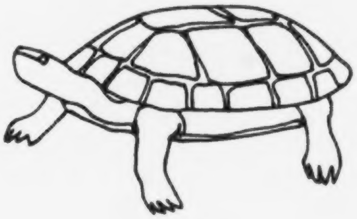
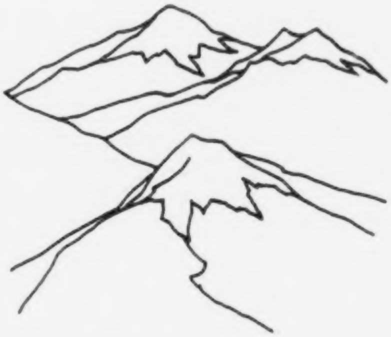








APPENDIX L

LESSON PLANS

LESSON 1: Select letters b, d, t and s
Media, methods, materials

Information Presentation:
Flash cards with letters b, d, t and s
Pictures and words that begin with b, d, t and s.

Practice: Individual overhead transparency for each letter. (b, d, t and s).
Reinforcement -- Flash cards will be help up by each student to match letter on transparency.

Feedback: Flip Charts -- Pictures from magazines cut out and pasted on chart paper. Letter symbol printed on opposite side of chart paper. Student guesses which letter picture begins with.

LESSON 2: Distinguish letters b, d, t and s from other letters
Media, methods and materials

Information Presentation:
Entire alphabet displayed over chalkboard in front of room with colorful pictures to correspond with each letter sound.

Student Practice:
Still visuals and or slides relating to letters b, d, t and s.

Feedback: As still visuals or slides are introduced, student writes letter for each picture. (Slides are numbered.)

LESSON 3: Trace upper and lower case b, d, t and s
Media, methods and materials

Information Presentation:
Letters b, d, t and s written on instructional chart. (25" by 25" display paper on which to write each letter) Works well in small groups. Cut outs for students to trace with tracing paper.

Practice: Method -- Demonstrate a manipulative skill. Trace letters with finger in the air. Trace letters b, d, t and s using cut outs and tracing paper.

Feedback: Mount letters on colorful poster board. Display in classroom. Workbooks provide practice at their own pace.

LESSON 4: Formulate sounds which correspond with b, d, t and s.
Media, methods and materials

Information Presentation:
Audio recording of sounds that b, d, t and s make.
Flashcards with letters b, d, t and s.

Practice: Tape recording of individual student saying sound of each letter. Flash cards are held up by students when they hear the appropriate sound for each letter.

Feedback: Play recording back of each student. Students sound out each letter orally.

LESSON 5: List objects and names in the classroom that begin with the letters b, d, t and s.
Media, methods and materials

Information Presentation:
Physical objects around classroom are utilized such as: blackboard, desk, table, seat, stuffed animals etc.

Practice: Resource Box -- Each student makes up index cards with objects and names that begin with b, d, t and s. Each student places card in his/her own resource box upon mastery of that word.

Feedback: Computer Programs: Keep a data base on words mastered for each student. Student can add new words as learned. Resource box can be taken home to share with parents.

LESSON 6: Read words with initial b, d, t and s sound. List words with b, d, t and s sound.
Media, methods and materials

Information Presentation:
Big Books -- colorful, large pages of b, d, t and s words for students to read. Writing Folder -- Convenient storage for each student's words of the day.

Practice: Small group discussion on words that begin with the b, d, t and s sounds. Handouts -- printing of letters b, d, t and s in front of pictures beginning with appropriate sound.

Feedback: Role playing -- acting out words for other students to guess. Adding to data base, new words learned.

LESSON 7: Read words with the b, d, t and s sound located medially.
Read words with ending b, d, t and s sound.
Media, methods and materials

Follow lesson 6 format. Same media, methods and materials.

LESSON 8: Formulate sentences using b, d, t and s words.
Media, methods and materials

Information Presentation:
Videotape --Oral presentation of prepared sentences with words including b, d, t and s sounds. Including role playing and story telling.

Practice: Words can be taken from data base listings to write sentences and or story.

Feedback: Playback of videotape with each child's oral presentation of sentences using b, d, t and s words. Other students applaud when they hear b, d, t or s sounds. Immediate feedback.

Individualized instruction is recommended for this group of students. The group consisted of eight students. The following is a breakdown of lessons and activities planned for this individualized instruction.

LESSON 1 Objective: Define letter B; students will recognize letter B. They will distinguish letter B from other letters. Display letter B on flash cards along with pictures of B words (example: boy, ball, bat). Students will state letter upon visualization of the letter. The entire alphabet will be displayed so that students can distinguish and select letter B from other letters.

LESSON 2 Objective: Review of letter B for reinforcement; children will cut out pictures beginning with letter B. Students will trace upper case B. A stencil will be supplied by the teacher. The children will practice on ditto sheets.

LESSON 3 Objective: Review of letter B for reinforcement; letter B is displayed on instructional chart (25" by 25" display paper on which to write each letter). The chart works well within a small group. All students can see the letter displayed. In addition, students will trace letter B using B pattern cut-out. When letters are completed, they are displayed on colorful backgrounds and hung around the classroom. Workbook pages are an additional activity where students work at their own pace to reinforce the writing of letter B.

LESSON 4 Objective: Students will formulate sound which corresponds to letter B ("buh"); audio recordings of "b" words will be made by each student. These recordings are excellent reinforcement tools. Each child can listen to other students' recordings as well. Students are given flash cards with letter B. Teacher reads words beginning with B and other letters. Students will hold up their B flash card when they hear the "buh" sound. An oral test will be administered during this lesson.

LESSON 5 Objective: Practice sound that B makes; the students will be asked to list objects and names that are both familiar to them and begin with the B sound. Examples of words may be viewed around the classroom (example: blackboard, boy, bench, Bob, book). Students will make an individual resource box. Within the box are index cards of B words that they have mastered. A data base can also be kept on each childs' list of words.

LESSON 6 Objective: Practice sound that B makes; the students will be asked to read words with initial B sound. Big books (large story books with colorful pictures) will be read by the students. Handouts- printing of letter

B in front of a picture which begins with B will be given to students. Students can also recognize words that end with the letter B (crib, cab). The letter B is also located medially in words (baby, bubble). Students will practice reciting words with B sounds.

LESSON 7 Objective: Review; Distinguishing letter B from other letters with use of flash cards and lists of words used to this point. Review sounds that letter B makes in words. Students will orally recite words with B sounds.

LESSON 8 Objective: The students will prepare sentences using words they have mastered. The sentences will be stated orally. Videotaping of students' reciting sentences gives immediate feedback and positive reinforcement. Oral language development is enhanced with this activity.

The students in first grade are instructed in reading forty-five minutes each day. These lessons were prepared for a group of six to eight first graders who are having difficulty reading. The existing kindergarten program does not focus on reading readiness. Many students cannot write their own names upon entering first grade. Some may be considered "at-risk" students due to the fact that they come from broken homes, foreign speaking backgrounds or little or no guidance at home.

APPENDIX M

HOME CHECKLIST

STUDENT PERFORMANCE CHECKLIST

DAY OF THE WEEK	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
WHAT DID I DO					
HOW I DID					

Letter of the day:

New words to add to list:

Make sound for letter:

Write letter:

Student name:

Parent signature:

Date:

CHECKLIST FOR LETTERS B,D,T AND S: LETTER/SOUND RECOGNITION

STUDENT'S NAME:____________________ DATE:____________________

DIRECTION:
Check the student's accomplishment with each of the four letters by placing a yes or no in each block
The student had little or no difficulty - yes
The student had difficulty performing the task - no

	B	D	T	S
1. Select letter from flash card without difficulty.				
2. Distinguish letter from other letters in alphabet.				
3. Trace upper case letter.				
4. Trace lower case letter.				
5. Formulate sound orally.				
6. Read words with sound in initial position.				
7. Read words with sound located medially in words.				
8. Read words with sound in ending position.				

APPENDIX N

PERFORMANCE RATING CHART

LOCATOR SHEET

Metropolitan Readiness Tests, Levels 1 and 2 - Norms Booklet. Harcourt, Brace, Javanovich, Inc. (1986). pp. 16.

Recording the Results

Use the back cover of the MRT test booklet and/or the *Class Record and Class Analysis Charts* for recording the test results.

1. Convert the raw score for each test to a Performance Rating (+, ✓, or −), using Table 3 for Level 1 and Table 4 for Level 2. To use these tables, locate the range in which the child's raw score on each test falls, and read across the same row to find the Performance Rating. For example, using Table 3, a raw score of 6 on the Beginning Consonants test translates to a Performance Rating of ✓.

2. Convert the Skill Area and Pre-Reading Composite raw scores to those norm-referenced scores of interest by using the appropriate tables. Norms for Level 1 can be found in Tables 5, 6, and 7 on pages 21–23, and norms for Level 2 are in Tables 8, 9, and 10 on pages 24–26. Make certain that the norms tables used correspond to the appropriate grade, level, and time of year the MRT was administered. To use the tables, locate the child's raw score under the correct heading (Skill Area or Pre-Reading Composite) and read across the same row to find the percentile rank (PR), stanine (S), and/or scaled score (SS). For example, using Table 10 for Level 2, a raw score of 20 for the Visual Skill Area converts to a percentile rank of 41, a stanine of 5, and a scaled score of 445.

3. The Class Record portion of the *Class Record and Class Analysis Charts*, packaged with the test booklets, provides a convenient, systematic summary of the test results for the class. Complete this summary sheet as soon as the scoring of the tests and the converting of scores are completed. If the *Copying Sheet* was administered, record the assigned rating in the column labeled "Copying Sheet Rating." (See Appendix A for information about how to evaluate the *Copying Sheets*.) An example of a completed Class Record for Level 1 is shown in Figure 5.

4. Fill out one or both of the Class Analysis Charts if the test results are being used to form skill development groups. The Content-Referenced Class Analysis Chart provides a convenient method for identifying children who need attention in the skills measured by specific tests. On this chart, children are grouped according to their Performance Rating on each test. An example of a completed Content-Referenced Class Analysis Chart for Level 1 of the MRT is given in Figure 6. The Norm-Referenced Class Analysis Chart provides a method for grouping students by Stanine Classification. An example of a completed Norm-Referenced Class Analysis Chart for Level 1 is provided in Figure 7.

TABLE 3. Performance Ratings Corresponding to Raw Scores for Level 1 of the *Metropolitan Readiness Tests*.

Test	Raw Score Band	Performance Rating	Test	Raw Score Band	Performance Rating
Auditory Memory	11–12	+	Visual Matching	13–14	+
	6–10	✓		9–12	✓
	0–5	−		0–8	−
Beginning Consonants	13–14	+	School Language and Listening	14–15	+
	5–12	✓		9–13	✓
	0–4	−		0–8	−
Letter Recognition	10–11	+	Quantitative Language	10–11	+
	7–9	✓		6–9	✓
	0–6	−		0–5	−

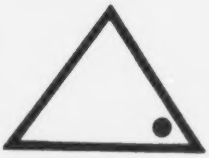
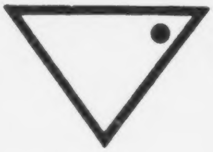
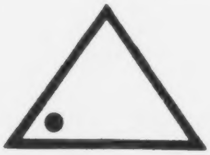
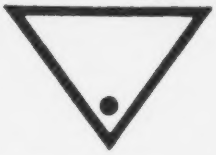
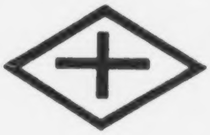
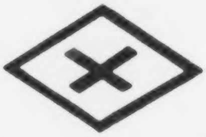
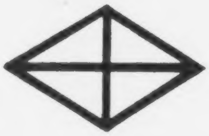
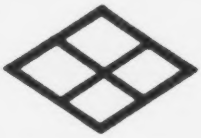
APPENDIX O

LETTER REVERSAL WORKSHEET

LOCATOR SHEET

HRW Reading. Holt, Rinehart and Winston, Inc. New York (1989). pp. T205, T209.

Letter Reversal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	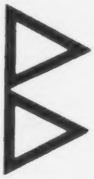	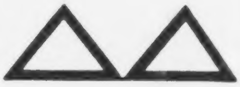	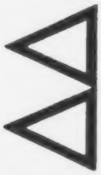	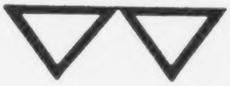
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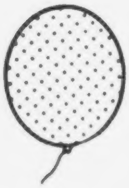
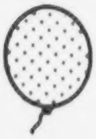
	TR	TЯ	RT	⊥R
	pud	bup	dub	dnp
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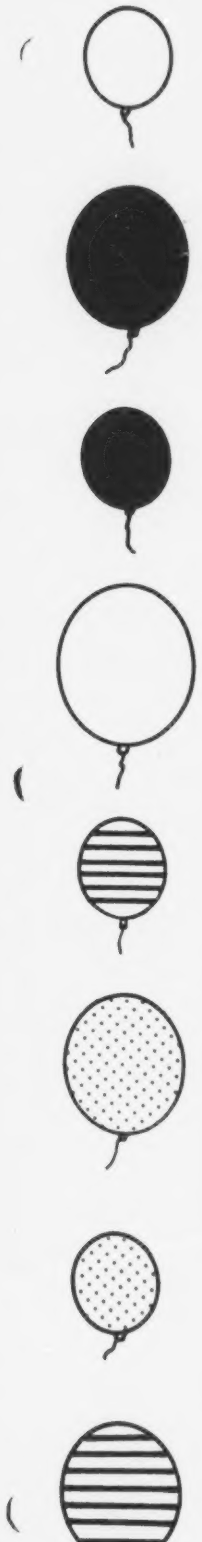
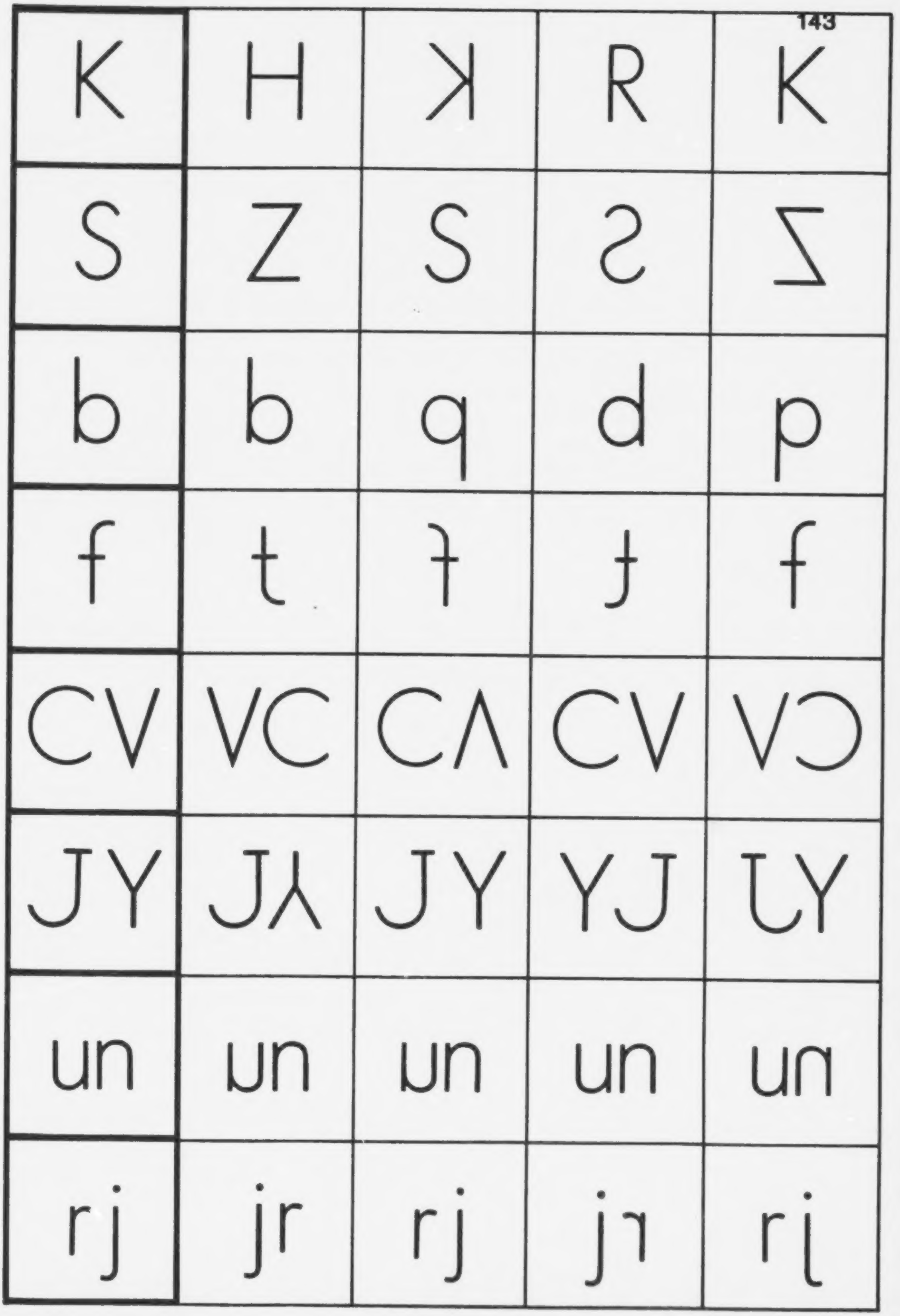
Letter Reversal

VISUAL





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K	H	ꓘ	R	K
S	Z	S	ꙅ	Z
b	b	q	d	p
f	t	ꞙ	ɟ	f
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JY	J⅄	JY	YJ	ſY
un	un	un	un	un
rj	jr	rj	jɿ	rʅ

Procedure I

Number Right

APPENDIX P

STUDENT SURVEY

REACTION SURVEY QUESTIONS

1. Did you enjoy the activities used in this instruction?
2. Were the activities fun to do?
3. Were the activities boring?
4. Did you learn new things?
5. Were the activities too difficult?
6. Would you like to use these activities in our classroom on a regular basis?

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